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# Seed Trade Buyers Guide

SILVER JUBILEE  
25th EDITION

PUBLISHED FROM THE OFFICES OF  
SEED WORLD, CHICAGO



*Scarlet Dawn — All-American Gold Medal*

## ASSOCIATED SEED GROWERS, INC.

Breeders and Growers of



Seeds for Garden and Lawn

Main Office and Export Department : New Haven, Connecticut

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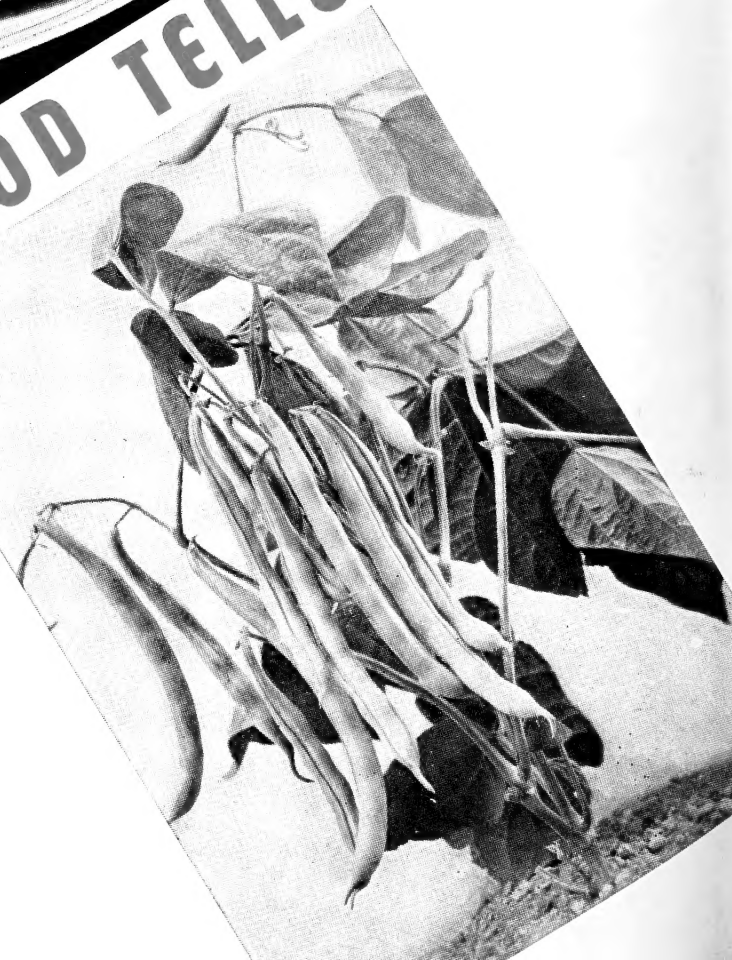
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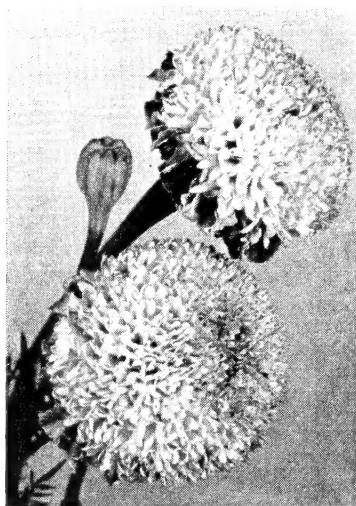
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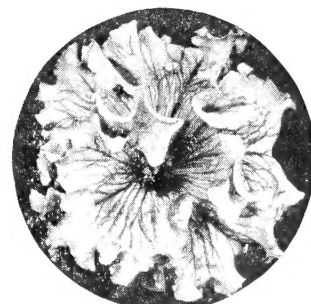
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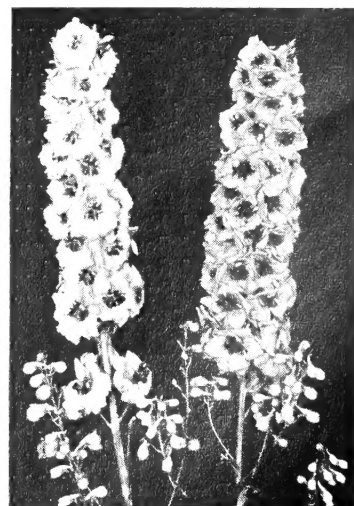
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Delphinium  
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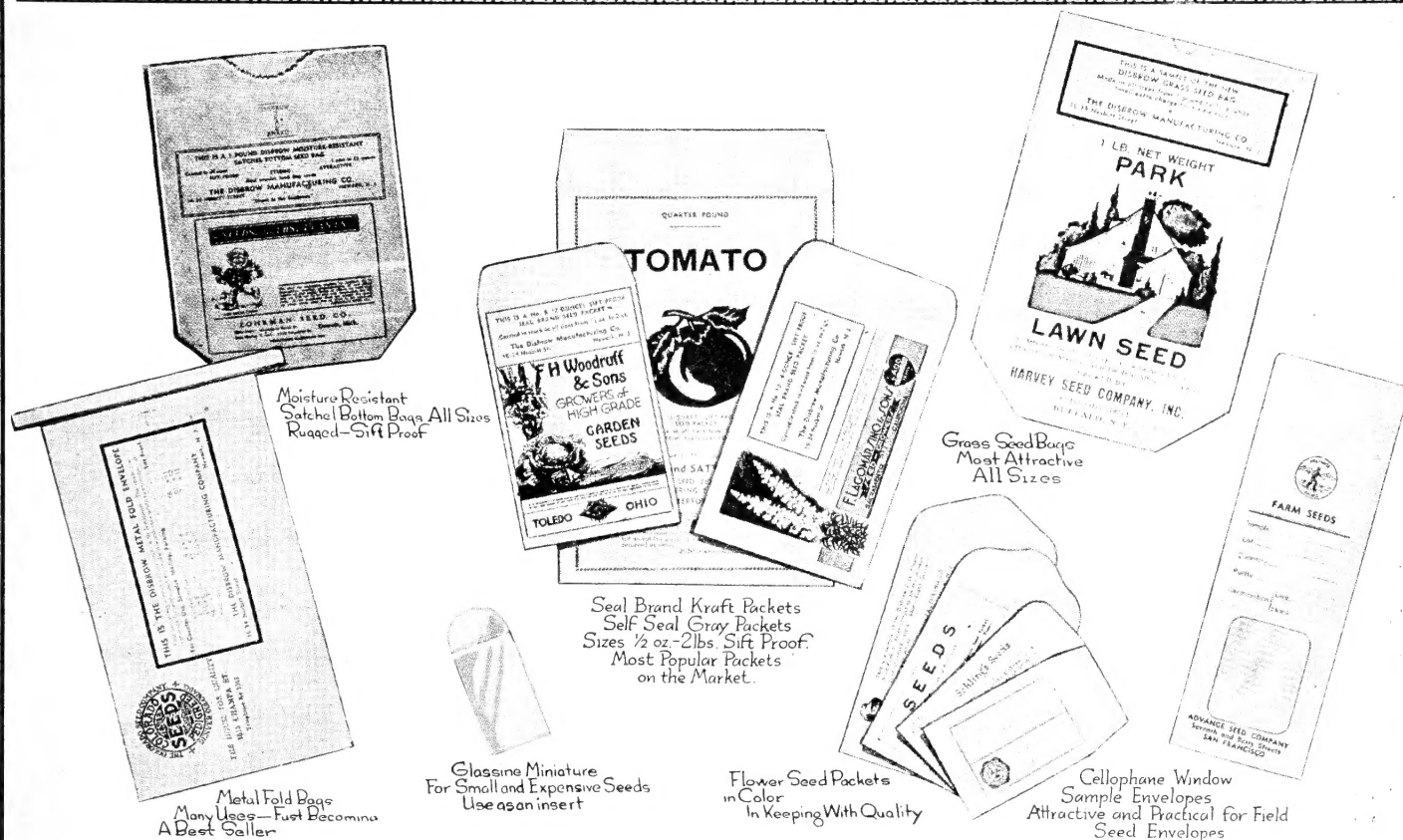
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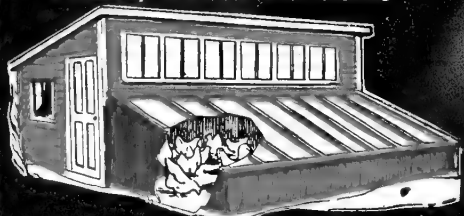
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# Warp's Window Materials

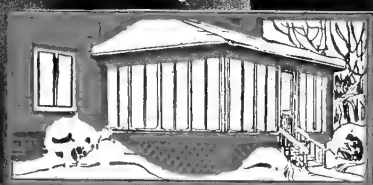
## Increase Your Profits - Give Better Service

### Poultry House Windows



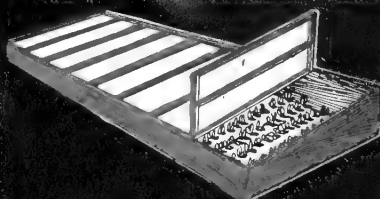
More Winter Eggs With No Extra Feed  
Healthy Chicks in One-Third Less Time

### Porch Enclosures and Covering Screen Doors



Save Fuel—Avoid Drafts  
Just Nail on Over Screen

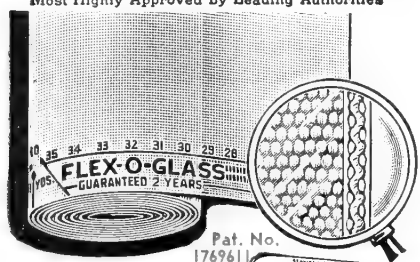
### Hot Beds & Greenhouses



Grow Hardier Plants Quicker  
Holds in Heat Better than Glass

### Genuine Extra Heavy FLEX-O-GLASS GUARANTEED 2 FULL YEARS

Most Highly Approved by Leading Authorities



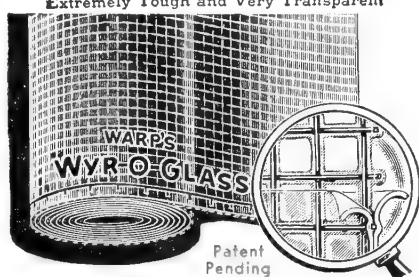
#### THE LEADING WINDOW MATERIAL

Lets Thru More Healthful Ultra-Violet Rays than other Substitutes (clear across the Spectrum) as proved in various Authentic Tests, and Holds in Heat Better Than Glass.

- Absolutely Waterproof — Unbreakable. Has 124 strong, preshrunk Threads per Square In. Impregnated with extra high M.P. Composition that will not run, discolor or melt in a Window.
- Extra Heavy — Extra Durable. Guaranteed 2 years by the Manufacturer.
- Most Widely used—Extensively advertised. All 50 and 100 yd. rolls Shipped right in a Handy Patented Dispenser with Feet, Yards, and Inches plainly printed along Selvage for easy cutting.

Cat. #	Yds.	Width	Sq. Ft.	Lbs.	Price
FOG-100	100 yds.	36"	900	56	Price on Request
FOG-50	50 yds.	36"	450	28	
FOG-25	25 yds.	36"	225	14	

### Warp's WYR-O-GLASS Wire Base Glass Substitute Extremely Tough and Very Transparent

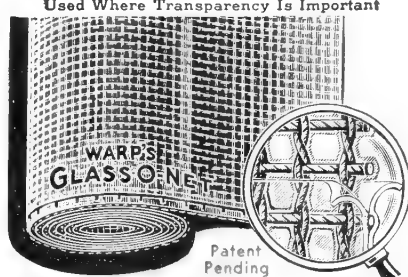


#### A WIRE BASE PLASTIC GLASS

- Tough Galvanized  $\frac{1}{4}$  inch mesh Wire Base, drawn Tough and Thin to admit more light.
- Every Joint and Wire imbedded in a cushion plastic, before final Transparent coating is applied, for double reinforcing and to eliminate air pockets.
- Plastic Glass applied to both sides, sealing wires inside. Everything fused into one Solid Weatherproof Sheet. No cheap rosin or glue to discolor or decompose, and—no air pockets to trap moisture in Warp's Wyr-O-Glass.
- Very Transparent. Extra high in Ultra-Violet ray Transmission. Good Insulator.
- Double Thickness Coating along both edges. Feet and inches plainly marked along Selvage.

Cat. #	Yds.	Width	Sq. Ft.	Lbs.	Price
WOG-50	50 yds.	36"	450	28	Price on Request
WOG-25	25 yds.	36"	225	14	
WOG-10	10 yds.	36"	90	7	

### Warp's GLASS-O-NET Mesh Base Glass Substitute Used Where Transparency Is Important



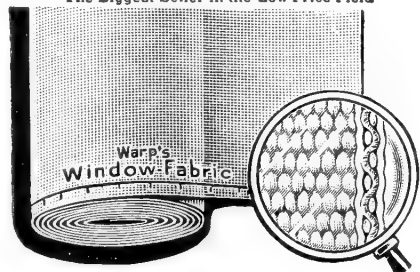
#### A PLASTIC GLASS COVERED NETTING

- Made on  $\frac{1}{4}$  inch mesh Waterproofed Cords. Extra strong. Dyed Light Fast Green.
- Every Cord imbedded in Cushion Plastic to eliminate air pockets where greatest strain occurs.
- Plastic glass applied over Cushion and Cords to seal everything together into one solid weatherproof sheet.
- Very Transparent. High Ultra-Violet Ray transmission. Can be washed with Soap and Water.
- No cheap rosin, glue or paste to decompose in Warp's Glass-O-Net, and no air pockets to trap moisture.
- Double Thickness Coating along reinforced edges. Feet and inches plainly marked along selvage.

Cat. #	Yds.	Width	Sq. Ft.	Lbs.	Price
GON-50	50 yds.	36"	450	18	Price on Request
GON-25	25 yds.	36"	225	10	
GON-15	15 yds.	36"	135	6	

### Warp's WINDOW-FABRIC

Ordinarily Lasts One Season  
The Biggest Seller in the Low Price Field



#### PLAIN WAXED CLOTH

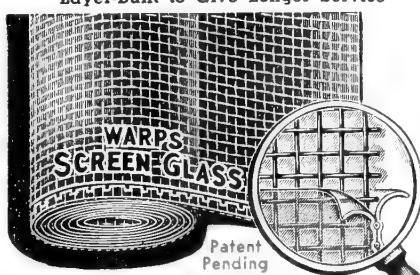
Over 80 threads per Square Inch. Impregnated with light stable, high melting point wax. Lets through Sun's Ultra-Violet Rays. Holds in heat better than glass.

Every Yard, Foot and Inch plainly marked along edge for easy measuring and cutting.

Cat. #	Yds.	Width	Sq. Ft.	Lbs.	Price
WF-100	100 yds.	36"	900	42	Price on Request
WF-50	50 yds.	36"	450	22	
WF-25	25 yds.	36"	225	12	

### Warp's SCREEN-GLASS

Plastic Covered Wire Cloth  
Layer-Built to Give Longer Service



#### TRIPLE LAMINATED SCREEN BASE

Fine Mesh Galvanized Wire Base, first dipped in a transparent pliable plastic, then laminations applied to both sides to give it greater wearing qualities.

Tough, Durable, Layer-Built Plastic Coating starts where others leave off, to make it last longer. Pliable and Transparent. Feet and inches are marked along Selvage. (Ship wt. 3 oz. per sq. ft.)

Cat. #	Width	Roll	Roll	Roll
36SG	36"	25 Ft.	50 Ft.	100 Ft.
28SG	28"			

Prices on Request

### Special Deal GLASS SUBSTITUTES



These Super-Quality Materials Are Not Sold By Mail Order Houses

Beat Them To The Sales With This ATTRACTIVE DISPLAY ON YOUR COUNTER

#### FREE Dispenser

Triples Sales	Sq. Ft. per roll	Price on Request
50 sq. yds. Flex-O-Glass	36"	450
25 sq. yds. Window-Fabric	36"	225
15 sq. yds. Glass-O-Net	36"	135
10 sq. yds. Wyr-O-Glass	36"	90

All Packed In One Box — Weight 65 Lbs.  
Cat. No. SPD200

All Items on This Page Are Manufactured by FLEX-O-GLASS MFG. CO. (Warp Bros.), 1104-6-8 N. Cicero Ave., Chicago  
Nationally Advertised Distributed by Better Hardware Jobbers Everywhere. Samples Free on Request

These Quality Materials Are Not Sold by Mail Order Houses

★ BE SURE OF BETTER QUALITY WITH

*Brown's*

**SEEDS!**



Our experience gained in over 50 years of continued production of Peas and Beans for the seed trade places us in position to produce high quality stocks. Our growing stations are well located, incorporating the most favorable conditions for production as well as for convenience of delivery to the trade.

We ship Peas and Beans into all of the important marketing sections throughout the country and we will be pleased to receive your inquiries. Prices will be quoted promptly.

**PEAS**

**SINCE**



**1890**

**BEANS**

Illustrations top and bottom show two of our many production fields. Center pictures a Brown roguing crew at work.

*Alfred J. Brown*

**SEED CO.**

**GRAND RAPIDS, MICHIGAN**

**GROWING STATIONS:** IDAHO FALLS, TWIN FALLS, IDAHO  
AND GRAND RAPIDS, MICHIGAN

# Seed Trade Buyers Guide

❧ SILVER ANNIVERSARY ~ 25th EDITION ❧

VOLUME XXV

FOR THE YEAR OF 1942



TWENTY-FIVE YEARS AGO, with war clouds hanging low over most of Europe, SEED TRADE BUYERS GUIDE made its initial appearance. It was largely an assemblage of government statistical information, including production and price comparisons, with a list showing sources of supply for certain seeds and allied lines. Though not large in size, it was tops as a medium of value to the trade, with the result that its growth has been consistent and vigorous year after year.

Now, after a quarter century of service to seedsmen, SEED TRADE BUYERS GUIDE again sees war clouds hanging low—this time over most of the world. Many trades and industries have been disrupted to the point where manufacture or production is frequently of greater importance than finding sales outlets. In some lines the time-honored laws of supply and demand are entirely disregarded.

Unusual publications are required to cope with the unusual business conditions of times like these. It has been the desire of the publishers to present the trade, in this volume of SEED TRADE BUYERS GUIDE and in the semi-monthly SEED WORLD, modernized business publications which give the desired information in the fewest number of words, or by table and pictures wherever possible.

Suggestions tending to still further streamline SEED TRADE BUYERS GUIDE will be gratefully accepted from our thousands of dealer subscribers. Our efforts, as publishers, are directed solely toward providing a more useful and a more readily accessible volume each year.

To these same thousands of dealer subscribers we dedicate this Silver Anniversary Issue of SEED TRADE BUYERS GUIDE and hope that volumes to follow will continue to merit the friendship and support of two highly important factors in horticulture—users of the book, and its advertisers.

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DOW

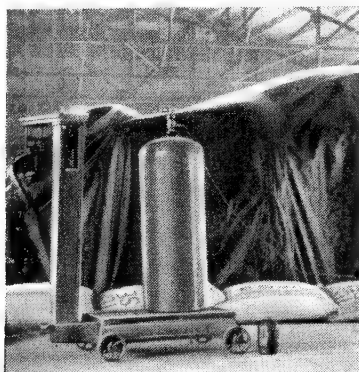
# METHYL BROMIDE

Dow Methyl Bromide saves your seeds from insect damage. Because of its rapid diffusion rate it penetrates throughout large warehouse stacks, killing, at one application, insects in all stages including the egg.

Dow Methyl Bromide is economical, nonflammable and easy to apply and vent. It does not affect germination when used at normal recommended dosages and exposure periods.

## TARPAULIN AND VAULT FUMIGATION

Through the use of a new plastic-coated tarpaulin perfected by Dow, individual lots of infested seed may be fumigated at outlying points, buying stations, retail stores, or loading docks. A tarpaulin not only serves as a portable fumigation vault, but provides maximum economy through a minimum of waste space.



Dow Methyl Bromide is a safe, economical, and effective vault fumigant. It is introduced from outside the vault through the use of metal or SARAN\* tubing so that the operator is not exposed to

\*SARAN TUBING—Dow has recently developed a chemically resistant tubing made of tough, flexible SARAN plastic which may be used in place of metal tubing to carry Dow Methyl Bromide into vaults and under tarpaulins.

the vapors. The dosage may be weighed out on a platform scale or measured in a specially designed applicator. Because of its rapid diffusion rate, the vault is quickly vented.

## WAREHOUSE FUMIGATION

Dow Methyl Bromide is particularly adapted to warehouse fumigation because of its ability to penetrate large warehouse stacks and give a complete kill throughout.

It diffuses under its own vapor pressure at ordinary fumigation temperatures. It is easily applied. Simply seal windows, doors, and other openings, then distribute cylinders evenly throughout the warehouse. At the completion of the exposure period, it will rapidly dissipate through opened windows and doors. Write DOW for a seed fumigation folder giving detailed instructions on this application.

Methyl Bromide is also an effective fumigant for flower bulbs. For detailed information on its use in this and other fields write to Dow.



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NEW YORK • ST. LOUIS • CHICAGO

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# MORE PROSPECTS . . . MORE ADVERTISING MEAN **BIGGER PROFITS FOR VIGORO DEALERS**

*in '42*



## ALSO FEATURE VIGORO SPREADERS

Profitable  
for you . . .  
economical  
for your  
customers.  
Make re-  
sults sure!



## VIGORO TABLETS

A swell specialty item that  
moves fast, gives you a nice  
margin.

Big, colorful Vigoro ads will appear in these popular national magazines during your best selling season. Tie in! Feature Vigoro! Get your share of this profitable business!

• 1942 is going to be a big year for Vigoro . . . and for Vigoro dealers.

In the past, most Vigoro promotion has been among upper class home owners. This year, higher wages and more hours of work are putting more money into the pock-

ets of home owners everywhere. There's a vast new market for Vigoro! We're going after that market . . . with a more powerful advertising campaign, a bigger one than ever before, telling the amazing story of Vigoro Magic . . . and Vigoro economy. Don't fail to tie in!

**VIGORO** THE COMPLETE  
PLANT FOOD  
SWIFT & COMPANY, CHICAGO, ILL.

# All-America Selections by Species

A SUMMARY OF ALL AWARDS MADE—1933-1942

G—Gold Medal, S—Silver Medal, B—Bronze Medal, M—Honorable Mention



*Cosmos Yellow Cosmos, or Yellow Flare.*  
Silver Medal. By W. Atlee Burpee Co.,  
Philadelphia, Pa.

## Ageratum

Name	Award	Year	Introducer
Midget Blue	S	1940	Waller-Franklin Seed Co.

## Anchusa

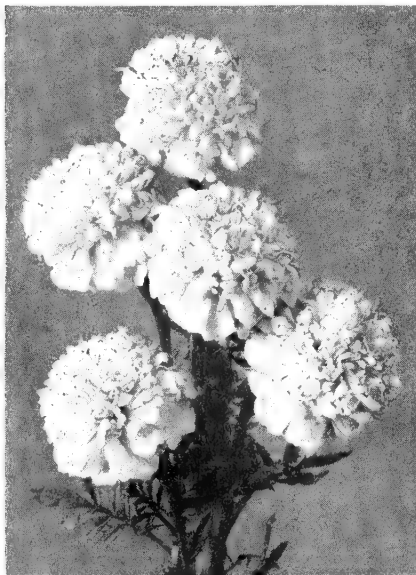
Blue Bird	B	1935	Watkins & Simpson
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## Antirrhinum

Celestial	S	1938	Sluis en Groot
Guinea Gold	B	1939	Hurst & Son
Psyche	M	1938	L. Daehnfeldt, Ltd.
Rosalie	B	1940	Waller-Franklin Seed Co.
Royal Rose	B	1936	Hurst & Son
Rustproof	Special Award	1935	Univ. of California
St. George	B	1936	Hurst & Son
White Spire	B	1937	Sluis en Groot

## Aster

El Monte	B	1936	Bodger Seeds, Ltd.
Los Angeles	S	1934	Bodger Seeds, Ltd.
Rose Marie	M	1940	Bodger Seeds, Ltd.
Silvery Rose	B	1934	Bodger Seeds, Ltd.



*Marigold, Dwarf French Double, Butterball.*  
Bronze Medal. By Bodger Seeds, Ltd., El  
Monte, Calif.

Wilt-Resistant	Special Award	1933	Bodger Seeds, Ltd.
Early Giant	S	1939	Bodger Seeds, Ltd.
Enchantress	M	1938	Bodger Seeds, Ltd.
Illusion	M	1938	Bodger Seeds, Ltd.

## Calendula

Orange Fantasy	S	1938	W. Atlee Burpee Co.
Orange Shaggy	G	1935	Waller-Franklin Seed Co. Vaughan's Seed Store
Sunshine	G	1934	Bodger Seeds, Ltd. W. Atlee Burpee Co.

## Calliopsis

Golden Crown	S	1938	Hurst Son
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## Canterbury Bell

Angelus Bell	B	1934	Waller-Franklin Seed Co.
Annual Mixed	G	1933	Waller-Franklin Seed Co.
Liberty Bell	S	1934	Waller-Franklin Seed Co.

## Celosia

Flame of Fire	B	1935	T. Sakata & Co.
Royal Velvet	M	1939	Livingston Seed Co.

## Chrysanthemum

Eldorado	B	1934	Bodger Seeds, Ltd.
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*Marigold Dwarf Chrysanthemum Flowered*  
*Golden Bedder. Bronze Medal. By W.*  
*Atlee Burpee Co., Philadelphia, Pa.*

## Cleome

Pink Queen	S	1942	Ferry-Morse Seed Co.
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## Cornflower

Jubilee Gem	S	1937	Hurst & Son
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## Cosmos

Orange Flare	G	1935	Bodger Seeds, Ltd.
Sensation	S	1936	J. V. Edlund
Yellow Flare	S	1942	W. Atlee Burpee Co.

## Cynoglossum

Firmament	B	1939	Ernst Benary
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## Delphinium

Cambridge Blue	S	1933	Waller-Franklin Seed Co.
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## Dianthus

Laciniatus Splendens	B	1935	Bodger Seeds, Ltd.
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## Hollyhock

Indian Spring	S	1939	Sluis en Groot
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## Hunnemania

Sunlite	S	1934	Bodger Seeds, Ltd.
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*Petunia Giants of California, Glamour.*  
Honorable Mention. By Bodger Seeds, Ltd.,  
El Monte, Calif.

## Larkspur

Blue Bell	B	1934	Bodger Seeds, Ltd.
Rosamund	G	1934	Bodger Seeds, Ltd.
White King	B	1937	Bodger Seeds, Ltd.

## Linaria

Fairy Bouquet	G	1934	Watkins & Simpson
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## Lupine

Giant King	S	1933	Waller-Franklin Seed Co.
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## Marigold

Butterball	B	1942	Bodger Seeds, Ltd.
Chrys'm Flowered	M	1938	Waller-Franklin Seed Co.
Crown of Gold	G	1937	W. Atlee Burpee Co.
Dixie Sunshine	S	1936	H. G. Hastings Co.
Dwarf Royal Scot	B	1937	Waller-Franklin Seed Co.
Early Sunshine	B	1939	W. Atlee Burpee Co.
Golden Beauty	B	1935	Hurst & Son
Golden Bedder	B	1942	W. Atlee Burpee Co.
Golden Glow	M	1939	W. Atlee Burpee Co.
Golden West	M	1938	W. Atlee Burpee Co.



*Pomea, Pearly Gates. Silver Medal.*  
Highest number of points. By Ferry-Morse  
Seed Co., Detroit and San Francisco.



Goldsmith	B	1941	Waller-Franklin Seed Co.
Guinea Gold	G	1933	Hurst & Son
Limelight	B	1940	W. Atlee Burpee Co.
Melody	B	1942	Ferry-Morse Seed Co.
Monarch Mixed	S	1934	{ Hurst & Son Bodger Seeds, Ltd.
Primrose Queen	B	1935	Hurst & Son
Scarlet Glow	M	1941	W. Atlee Burpee Co.
Spry	S	1941	W. Atlee Burpee Co.
Yellow Beauty	B	1935	Hurst & Son
Yellow Pygmy	M	1940	W. Atlee Burpee Co.
Yellow Supreme	G	1935	Livingston Seed Co.
Yellowstone	M	1942	Waller-Franklin Seed Co.

### Morning Glory

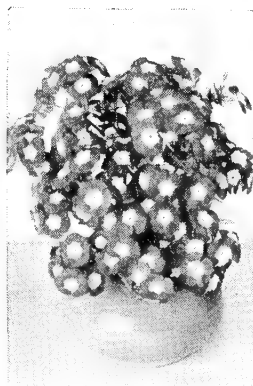
Lavender Rosette	M	1940	Sluis en Groot
Scarlett O'Hara	G	1939	{ Waller-Franklin Seed Co. Dallas Seed Producing Co.
Pearly Gates	S	1942	Ferry-Morse Seed Co.

### Myositis

Ingrid	M	1938	L. Eaehtfeldt, Ltd.
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### Nasturtium

Glorius Gleam Hybrids	S	1935	Bodger Seeds, Ltd.
Golden Gleam	G	1933	Bodger Seeds, Ltd.



*Phlox Gigantea Red Glory. Honorable Mention. By Waller-Franklin Seed Co., Guadalupe, Calif.*

Golden Globe	S	1936	{ Vis Brothers, Ltd. Bodger Seeds, Ltd.
Scarlet Gleam	G	1935	Bodger Seeds, Ltd.

### Nierembergia

Purple Robe	B	1942	Bodger Seeds, Ltd.
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### Pansy

Coronation Gold	S	1938	Sluis en Groot
Dwarf Swiss Giants	S	1933	Vaughan's Seed Store

### Petunia

Blue Brocade	S	1941	T. Sakata & Co.
Blue Gem	M	1938	T. Sakata & Co.
Burgundy	B	1937	W. Atlee Burpee Co.
Cream Star	S	1940	W. Atlee Burpee Co.
Dainty Lady	S	1936	Bodger Seeds, Ltd.
First Lady	S	1941	T. Sakata & Co.
Flaming Velvet	G	1936	Sluis en Groot
Glamour	M	1942	Bodger Seeds, Ltd.
Glow	S	1940	T. Sakata & Co.
Hollywood Star	S	1939	Waller-Franklin Seed Co.
Imp'd. Rose King	B	1936	Ferry-Morse Seed Co.
Ladybird	B	1939	Ernst Benary
Martha Washington	S	1935	Waller-Franklin Seed Co.
Pink Gem	G	1934	Waller-Franklin Seed Co.
Radiance	S	1941	Waller-Franklin Seed Co.
Rose Gem	S	1936	Waller-Franklin Seed Co.
Salmon Supreme	S	1938	W. Atlee Burpee Co.
Topaz Rose	B	1938	Waller-Franklin Seed Co.
Velvet Ball	B	1939	{ Vis Brothers, Ltd. Bodger Seeds, Ltd.
Victorious Apple Blossom	M	1939	T. Sakata & Co.



*By Ferry-Morse Seed Co., Detroit and San Francisco.*

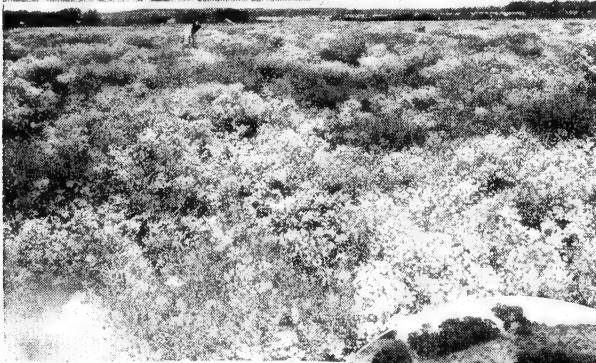
*Cleome Pink Queen. Silver Medal.*

# Burpee's <sup>VEGETABLE</sup> Seeds



A section of the vegetable seed trials at Burpee's Fordhook Farms—a Burpee vegetable scientist makes Melon notes on the 1941 crop.

Burpee's Floradale Farms in California have been found well-suited to the production of Cauliflower seed formerly grown abroad. Below is a growing field which has now been harvested for 1942 delivery.



David Burpee inspects the seed crop of the new vegetable, Burpee's Celtuce, at Floradale Farms.

Burpee vegetable experts have made a special study of Tomatoes. In this picture Burpee's Table Talk is being noted in the Tomato trials at Fordhook.



Below is a field of Onions growing for seed at the Burpee growing station in Idaho.



W. Atlee Burpee III aids in making Carrot notes at Burpee's Floradale Farms in California.



The Burpee Buildings in Philadelphia, where headquarters, offices, warehouses, packaging and order-filling departments are located, convenient to both rail and water transportation facilities. Carload shipments are loaded on the private siding.



**Y**EARLY, many thousands of acres are planted from Burpee's special stocks of vegetable seeds, in the soils and climates best suited for the harvest of plump, virile, disease-free seeds that will bring profitable crops to your customers.

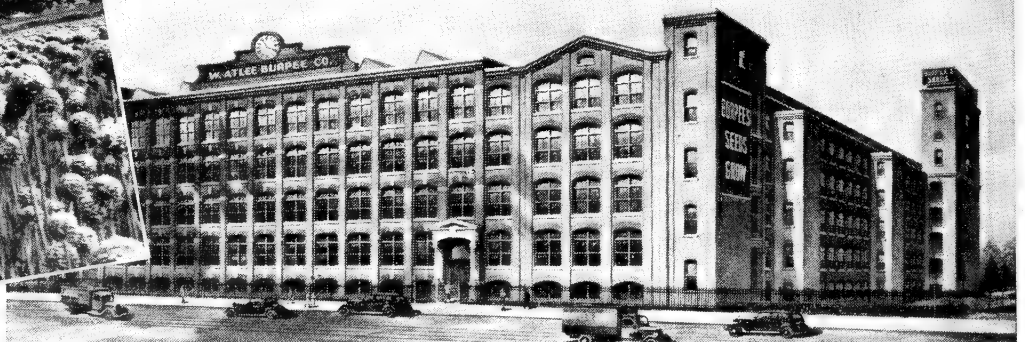
Even before the complete stoppage of vegetable seeds formerly grown abroad, Burpee vegetable experts were checking the possibilities of increasing the production of Burpee's vegetable seeds to include these crops. Consequently, new acreages were added to the extensive Burpee vegetable plantings last spring; the Cauliflower seed harvest on Burpee's Floradale Farms in California last fall is a timely example—the quality of which we believe to be just as good as the best Danish seed we ever handled.

## Sixty-Five Years of Service

For sixty-five years, seedsmen and dealers have been selling Burpee's seeds. In the coast-to-coast seed-production operations of the W. Atlee Burpee Co., no expense is spared in carefully growing and testing the best varieties of both flower and vegetables to maintain the highest quality, uniformity and germination for the entire satisfaction of you and your customers—whether you buy in bulk, or packaged under the Burpee brand to take advantage of the extensive national advertising and publicity that has made the Burpee name a household word among the gardeners of America.

Burpee's Fordhook Farms in Pennsylvania are the most famous seed-breeding and testing farms in the world; many leading vegetables bear the name of Burpee or Fordhook.

*Because of conditions well-known in the trade, it is especially advantageous to cover all requirements as early as possible this year. You have our assurance to meet your needs to the greatest degree our unusually extensive stocks will allow. Please send your want lists to the address on page at right.*





# Burpee's *Flower* Seeds

THIRTY years ago, in seeking the ideal soil and climate for growing Burpee's Sweet Peas, the great flower-seed producing area was discovered which today is so well known as Burpee's Floradale Seed Farms. What was then recognized as unsurpassed for the production of Sweet Peas has been found to be the finest flower seed producing section in the entire world. Deep alluvial soil, long season and sunny harvest unite to yield plump, full-of-vitality seeds with the extra vigor that spells dependability.

Here at Floradale Farms in California, at Burpee's Fordhook Farms in Pennsylvania and in other areas suited to the needs of special projects, under the inspiration and direction of David Burpee there has devolved the most extensive flower development program in the world.

## Old Varieties Improved, New Varieties Introduced

As a result of this intensive, widespread and constant effort, from year to year there has been a continual procession of Burpee Novelties of merit, and marked improvement in many universally popular classes and strains—Giant Ruffled Sweet Peas, Hybrid Nasturtiums, Marigolds with odorless foliage, Salmon Supreme Petunia, Cream Star Petunia, Cupid Zinnias, David Burpee Zinnias, Golden Rod Snapdragon, Asters, Larkspur, Calendulas, Yellow Cosmos, etc.

For the latest and best, as well as most dependable stocks of all leading flowers and vegetables, also the unusual—send your want lists to Burpee for a sure source of supply.

**Burpee's Flower and Vegetable Seeds in Colored Packets**  
—on sale or return basis. If you use display racks and packets, send for the details of this offer.

*If you do not already have Burpee's Red List—Wholesale Prices for Seedsmen and Dealers—we invite you to send for your copy now.*

## W. Atlee Burpee Co. *Seed Growers*

Hunting Park Ave. at 18th St., PHILADELPHIA, U. S. A.

Telephone: Sagamore 8800—Direct Wires: Western Union & Postal Tel.

Zinnias are a Burpee specialty. Many acres are planted to Zinnias on Burpee's Floradale Farms—we grow a wide variety of types from the tiny cupids to the new Burpee's Super Giants, the largest of all Zinnias.

A few of the improved types and colors of Burpee's Marigolds with Odorless Foliage, introduced within the past three years.



At Burpee's Floradale Seed Farms in California David Burpee inspects some of the Marigold plantings. The numerous plant selections and further hybridizing are evidence of Burpee faith in a continuously increasing popular demand for Marigolds.



A glimpse of the well-known Burpee's Fordhook flower trials, where Burpee quality is carefully checked and maintained.

Salvia is a well-known crop on Fordhook Farms and each year many fields are grown of the different varieties.



In this view may be seen a portion of the experimental plantings to further improve present varieties and to develop new ones on Burpee's Floradale Farms.

# LOOK!

THESE ARE THE TWO  
PRODUCTS THAT HAVE  
MADE HISTORY IN  
SEED STORES!

I



the plant hormone powder

It is hard to find a successful grower these days who does not use ROOTONE for increasing the rooting of cuttings or hastening the germination of seeds. Stock ROOTONE for the new treatment on corn, alfalfa and cotton.



ROOTONE COUNTER DISPLAY

2



the vitamin-hormone powder

is used by professional and amateur growers alike for stimulating root growth on all plants and reducing loss from transplanting flower, tomato, cabbage and especially tobacco seedlings.



TRANSPLANTONE  
DISPLAY CASE

These are among the most heavily and consistently advertised garden accessories. It pays to carry and display them.

Ask your jobber or write for our dealer proposition.

**AMERICAN CHEMICAL PAINT CO.**  
Horticultural Division Y-3  
Ambler, Pa.



*Nierembergia Coerulea Purple Robe. Bronze Medal. By Bodger Seeds, Ltd., El Monte, Calif.*

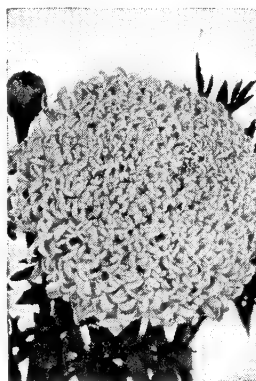
Victorious Gaiety	B	1938	T. Sakata & Co.
Victorious, Mixed	S	1934	T. Sakata & Co.
Victorious Orchid			Ferry-Morse Seed Co.
Beauty	S	1938	T. Sakata & Co.
Violet Gem	M	1941	Waller-Franklin Seed Co.

#### Phlox

Gigantea Art Shades	S	1935	Waller-Franklin Seed Co.
Red Glory	M	1942	Waller-Franklin Seed Co.
Rosy Morn	R	1941	Waller-Franklin Seed Co.
Salmon Glory	S	1939	Waller-Franklin Seed Co.

#### Poppy, Iceland

Yellow Wonder	B	1937	W. Atlee Burpee Co.
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*Marigold Mission Giant Yellowstone. Honorable Mention. By Waller-Franklin Seed Co., Guadalupe, Calif.*

#### Verbena

Beauty of Oxford	S	1933	Waller-Franklin Seed Co.
Blue Sentinel	B	1939	W. Atlee Burpee Co.
Cerise Queen	B	1934	Waller-Franklin Seed Co.
Dannebrog	S	1934	L. Daehnfeldt, Ltd.
Floradale Beauty	S	1937	W. Atlee Burpee Co.
Lavender Glory	S	1933	Waller-Franklin Seed Co.
Spectrum Red	B	1934	Waller-Franklin Seed Co.
Violet Bouquet	B	1935	Waller-Franklin Seed Co.

#### Zinnia

Black Ruby	B	1941	W. Atlee Burpee Co.
Fantasy, Mixture	S	1935	Bodger Seeds, Ltd.
Fantasy, Star Dust	S	1937	Bodger Seeds, Ltd.
Fantasy, White Light	M	1939	Bodger Seeds, Ltd.
Navajo, Mixed	M	1938	W. Atlee Burpee Co.
Royal Purple	M	1942	Ferry-Morse Seed Co.

### VEGETABLES

#### Bean

Name	Award	Year	Introducer
Asgrow Stringless Green Pod	G	1933	Associated Seed Growers, Inc.
Bush Snap, Long Island Longpod	M	1942	William Kroemer
Bush Snap, Medal Refugee	B	1942	Associated Seed Growers, Inc.
Bush Snap, Tender Pod	B	1941	W. Atlee Burpee Co.
Granda	S	1939	Rudolph Schreiber & Sohne
Plentiful (Asgrow) Stringless	B	1939	Ferry-Morse Seed Co.
Black Valentine	S	1933	Associated Seed Growers, Inc.
Pole Snap, Decatur	S	1942	Associated Seed Growers, Inc.
The Commodore	S	1938	Zwaan & Van der Molen

#### Bean, Lima

Baby Potato	S	1940	Associated Seed Growers, Inc.
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#### Rudbeckia

Starlight	M	1942	Buckman, Denholm and Holden Seed Co.
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#### Salvia

Royal Blue	M	1940	Hurst & Son
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#### Scabiosa

Blue Moon	M	1939	Bodger Seeds, Ltd.
Giant Hybrids	B	1934	W. Atlee Burpee Co.
Heavenly Blue	B	1940	W. Atlee Burpee Co.
Peace	M	1941	W. Atlee Burpee Co.

#### Stock

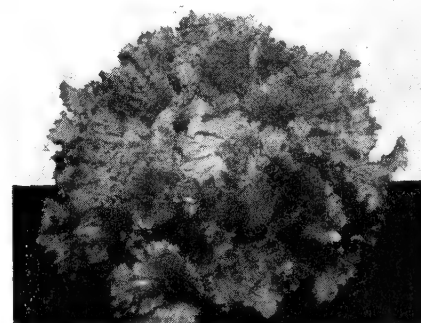
Rose Pink	B	1937	Waller-Franklin Seed Co.
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#### Sweet Pea

Spring, Blue	B	1940	Ferry-Morse Seed Co.
Spring, Lavender	M	1940	Ferry-Morse Seed Co.
Spring, Rose Pink	S	1940	Ferry-Morse Seed Co.

#### Venidium

Fastuosum	S	1933	Bodger Seeds, Ltd.
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*Lettuce Cosberg 600. Honorable Mention. By Northrup, King & Co., Minneapolis, Minn.*

# A Timely Message to Seedsmen



*Field scene showing one of the California Flower Seed  
Ranches of Waller-Franklin Seed Company*

**T**HIS last season a great many firms who ordered late found it impossible to obtain, for their 1942 selling season, stocks on a large number of the varieties of FLOWER SEEDS that they usually offer.

The fact that some items were non-obtainable by the firms who ordered late was partially due to the general short crops. However, most of the difficulty experienced in locating stocks was the result of late ordering.

Orders must be filled in the rotation in which they are received, and in the event of a short crop, late buyers often find it impossible to cover on their requirements.

For 1942 crop or for your 1943 selling season, we urge you to place your FLOWER SEED order just as soon as 1942 crop prices are available.

**"The better the grower's reputation for quality,  
the sooner you may expect to find him sold out."**

## WALLER-FRANKLIN SEED CO.

GUADALUPE, CALIF.



*Wholesale Growers*



U. S. A.



**Bean, Bush Snap, Long Island Longpod.** Honorable Mention. By William Kroemer, Hicksville, N. Y.

#### Beet

Asgrow Canner	S	1936	Associated Seed Growers, Inc.
Asgrow Wonder	G	1934	Associated Seed Growers, Inc.
Good for All	B	1934	Ferry-Morse Seed Co.
Little Marvel	B	1934	Zwaan & Van der Molen
Ohio Canner	S	1933	Ohio Experiment Station
Perfected Detroit	S	1934	J. M. Lupton & Son
Perfect Model	B	1938	Abraham Sluis, Ltd.

#### Cabbage

Chieftan	S	1938	Ferry-Morse Seed Co.
Just Right	B	1935	Sluis Bros., Ltd.
Moscow Market Pride	M	1937	Abraham Sluis, Ltd.
Penn State Ballhead	S	1934	Penn State College
Earliest of All (Red)	M	1937	Abraham Sluis, Ltd.
Sauerkraut King	M	1938	Abraham Sluis, Ltd.

#### Cantaloupe

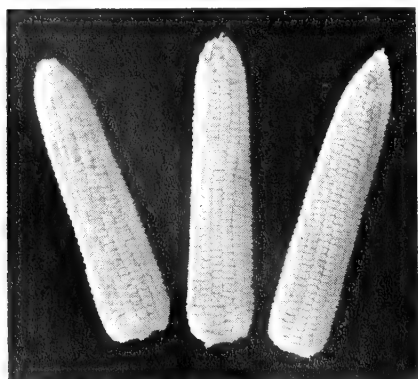
Honey Gold	M	1941	Edward Lowden
Honey Rock	G	1933	J. C. Robinson Seed Co.
Imperial	S	1935	J. C. Robinson Seed Co.
Improved Perfecto	S	1933	Garwood & Woodside
Queen of Colorado	M	1939	J. C. Robinson Seed Co.
Wayside Market	M	1939	D. V. Burrell Co.

#### Carrot

Claudia	B	1937	L. Clause, Inc.
Imperator	S	1933	Associated Seed Growers, Inc.
Morse's Bunching	G	1934	Ferry-Morse Seed Co.
Supreme Half-Long	B	1937	Ferry-Morse Seed Co.

#### Corn, Sweet

Allegheny, Hybrid	B	1941	Associated Seed Growers, Inc.
Aristogold Bantam No. 1	M	1939	Michael-Leonard Seed Co.
Ear Pack Bantam	M	1939	Northrup, King & Co.
12-Row	S	1936	Associated Seed Growers, Inc.
Golden Colonel	S	1936	Associated Seed Growers, Inc.
Hybrid Bantam	S	1935	Sioux City Seed Co.



**Hybrid Sweet Corn Lincoln.** Bronze Medal. By Connecticut Experiment Station and Maurice Rogers, Orange, Conn.

Hybrid Sweet, Lincoln	B	1942	Conn. Experiment Station Sleeping Giant Seed Farms
Hybrid Sweet, Top-flight Bantam	M	1942	Michael-Leonard Seed Co.
Ioana	B	1940	Iowa State College Associated Seed Growers, Inc.
Kingscrest Bantam	B	1934	Northrup, King & Co.
Spancross, Hybrid	M	1941	W. Ralph Singleton
Stowell's Erg. Hybrid	B	1934	Associated Seed Growers, Inc.

#### Cucumber

Barteldes	S	1934	Barteldes Seed Co.
Clark's Special	S	1933	Associated Seed Growers, Inc.
Colorado	S	1935	J. C. Robinson Seed Co.
Straight-8	G	1935	Ferry-Morse Seed Co.

#### Eggplant

New Hamps. Hybrid	S	1939	N. H. Experiment Station
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#### Endive

Batavian Full Heart	S	1934	Vilmorin-Andrieux & Co.
Cos-type Batavian	M	1941	Ferry-Morse Seed Co.
Deep Heart Fringed	S	1940	Ferry-Morse Seed Co.
Prizewinner	B	1937	Sluis Brothers, Ltd.

#### Kohlrabi

Triumph of Prague	S	1937	Sluis Brothers, Ltd.
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#### Lettuce

Atlantic	B	1937	Sluis en Groot
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**Bean, Bush Snap, Medal Refugee.** Bronze Medal. Associated Seed Growers, Inc., New Haven, Conn.

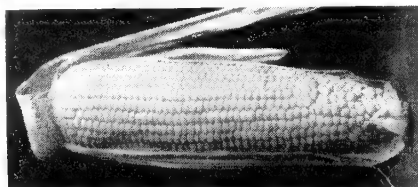
Cosberg 600	M	1942	U.S. Dept. of Agriculture Northrup, King & Co.
Giant So. Curled, L.S.	G	1935	Abraham Sluis, Ltd.
L. S. White Boston	S	1935	Francis C. Stokes & Co.
New York PW55	M	1942	Pieters-Wheeler Seed Co.
Spearhead	M	1938	W. Atlee Burpee Co.

#### Okra

Clemson Spineless	S	1939	S. C. Experiment Station
La. Green Velvet	M	1942	Fruit & Truck Exp. Sta.
White Lightning	B	1939	H. G. Hastings Co.

#### Onion

Yellow Valencia	S	1937	D. V. Burrell Co.
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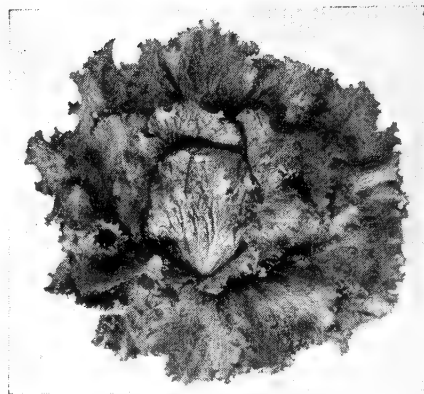
**Corn, Hybrid Sweet, Topflight Bantam.** By Michael-Leonard Seed Co., Sioux City, Ia.

#### Parsley

Evergreen	M	1940	Ferry-Morse Seed Co.
Paramount	S	1936	Ferry-Morse Seed Co.
Peerless	S	1934	Zwaan & Van der Molen

#### Pea

Canner King	B	1937	Associated Seed Growers, Inc.
Confidence	H	1936	Zwaan & de Wiljes, Inc.
Teton	S	1937	Associated Seed Growers, Inc.
Top Notch	M	1939	W. Atlee Burpee Co.



**Lettuce New York PW55.** Honorable Mention. By Pieters-Wheeler Seed Co., Gilroy, Calif.

#### Pepper

Asgrow King	B	1935	Associated Seed Growers, Inc.
Fordhook	B	1940	W. Atlee Burpee Co.
Rocky Ford	B	1938	D. V. Burrell Co.
Sweet Banana	B	1941	Corneli Seed Co.
Windsor A	S	1937	Conn. Experiment Station

#### Radish

Billiard Ball	M	1938	Sluis en Groot
Comet	S	1936	Zwaan & Van der Molen
Glowing Ball	G	1934	Zwaan & Van der Molen
Jewel	B	1936	Zwaan & de Wiljes, Inc.
White Pearl	B	1935	Sluis Brothers, Ltd.

#### Spinach

Bloomdale No. 5	B	1937	Sluis Brothers, Ltd.
Darbie	B	1937	Zwaan & Van der Molen
Del Monte	M	1938	Zwaan & Van der Molen
Giant Nobel	S	1933	Zwaan & Van der Molen
Resisto	M	1937	Zwaan & de Wiljes, Inc.
Summer Savoy	B	1937	Zwaan & Van der Molen
Viking	S	1935	Sluis en Groot
Winter King	B	1937	Zwaan & Van der Molen

#### Squash

Conn. Straightneck	M	1939	Conn. Experiment Station
Ey. Prolific St'neck	S	1938	Ferry-Morse Seed Co.
Fordhook Zucchini	M	1942	W. Atlee Burpee Co.
Golden Table Queen	B	1939	J. C. Robinson Seed Co.
Yankee Hybrid	B	1941	Lawrence C. Curtis

#### Tomato

Burpee Globe	S	1936	W. Atlee Burpee Co.
Cardinal	M	1938	Associated Seed Growers, Inc.
Harkness	M	1938	McFayden Seed Co.
Mingold	S	1940	Minn. Experiment Station
Penn State	B	1936	Walter S. Schell, Inc.
Pritchard	G	1933	U. S. Dept. of Agriculture
Scarlet Dawn	G	1935	Associated Seed Growers, Inc.
Victor	B	1941	Keith Barronz

#### Watermelon

Graystone	S	1933	H. G. Hastings Co.
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**Squash Fordhook Zucchini.** Honorable Mention. By W. Atlee Burpee Co., Philadelphia, Pa.



# HURFF SEEDS

*... Better from the Ground Up*



## *Selected Strains of* **TOMATO SEED**

*(\*State Certified by New Jersey Department of Agriculture)*

**BONNY BEST**

**BREAK O' DAY**

**\*MARGLOBE**

**PRITCHARD**

**\*RUTGERS**

**GROTHENS GLOBE**

**\*STOKESDALE**

**GREATER BALTIMORE**

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*Seed of Grade A Quality Also in*

**PEPPER**

**EGG PLANT**

**PUMPKIN**

**CUCUMBER**

**MUSKMELON**

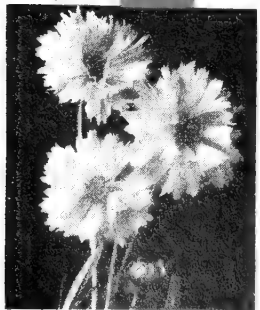
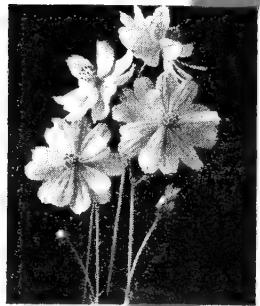
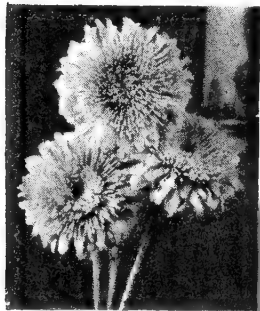
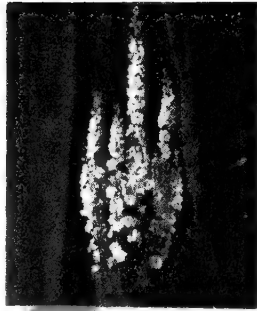
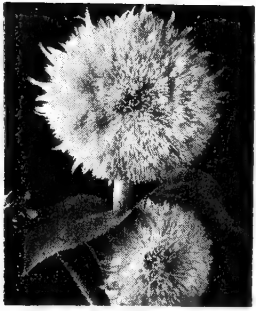
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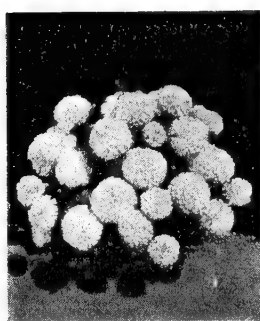
**SWEDSBORO, NEW JERSEY**



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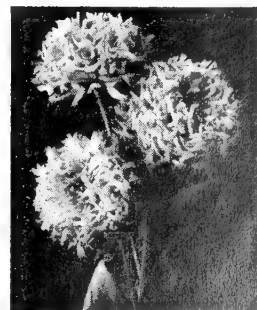
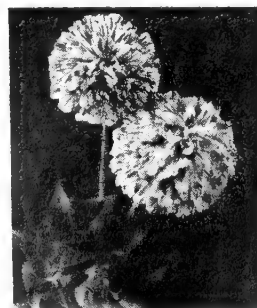
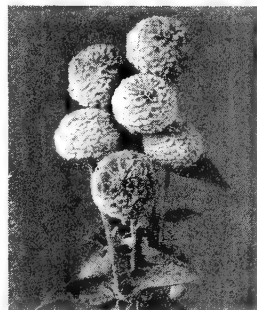
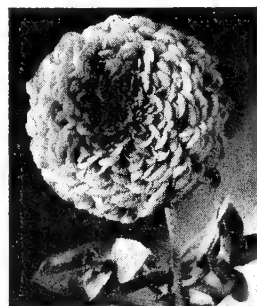


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# The Big Family of Legumes

A Pictorial and Descriptive Listing of Most of the Important Kinds and Varieties

by

EDWARD H. GRAHAM  
U. S. Soil Conservation Service

**M**AN used leguminous plants to enrich the soil centuries before he knew what made them useful. Records from the oldest civilizations of Egypt and eastern Asia demonstrate the ancient use of various Old World beans, peas, vetches, soybeans, and alfalfa. One of the early Greek botanists, Theophrastus, in summarizing much that had been learned up to his time, which was the third century before Christ, wrote of leguminous plants "reinvigorating" the soil and stated that beans were not a burdensome crop to the ground but even seemed to manure it. The Romans laid emphasis on the use of leguminous plants for green manuring; they also introduced the systematic use of crop rotations, a practice that was forgotten for a time during the early Middle Ages.

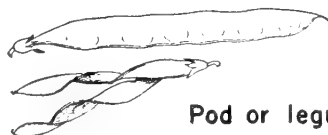
In the Americas as well as the Old World, there was a well-developed native agriculture that had not neglected the indigenous legumes. When Columbus reached the West Indies, he was much impressed by cultivated fields of corn, sweetpotatoes, cassava, and peanuts, the last a legume. The early European immigrants found the Indians of the Atlantic coast raising native legumes with their corn. In the Southwest, beans such as the tepary bean were cultivated, and wild leguminous seeds were ground and eaten by the Indians, the mesquite being a staple food of many tribes. Legumes are second only to the cereal grasses as sources of human food and animal forage.

The Leguminosae of the world includes some twelve to fifteen thousand species and is surpassed in numbers by only one other plant family, the Compositae, with about twenty to twenty-five thousand species. The grasses of the world, so important agriculturally, embrace probably 10,000 species, and great expanses of grassland in every continent constitute one of the world's major vegetation types. Legumes and composites, however, usually occur as scattered secondary components of the native vegetation. Although no exhaustive check list has recently been compiled, it is estimated that there are nearly 2,000 species of leguminous plants native to the United States. Many foreign species are naturalized here, and about 50 legumes, mostly introduced, are grown in this country as commercial crop plants. Many exotic and some native legumes are cultivated as ornamentals.

The large number of leguminous plants to be found in the United States necessitated some selection. Strictly

ornamental plants are excluded. The species treated are: (1) Those that have actually been used to control erosion or are unusually promising for their erosion-control value; (2) those

with known records of use by wildlife; and (3) those of significance to the soil and wildlife conservationist for some other particularly pertinent reason. However, both native and introduced



Pod or legume



Stamens



Pistil



Standard

Wings  
Keel



Mimosa flower



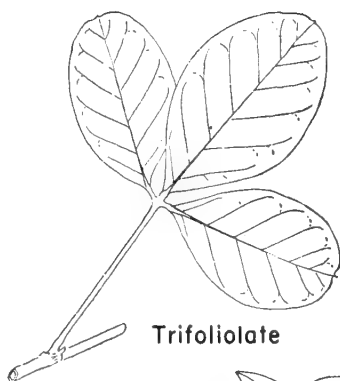
Standard

Wings  
Keel

Pea flower



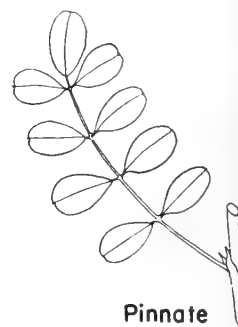
Cassia flower



Trifoliate



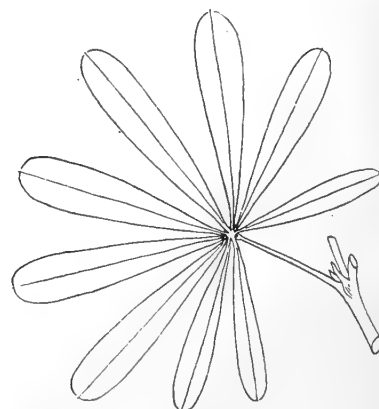
Simple or unifoliate



Pinnate



Bipinnate



Palmate or digitate

Leaves

legumes in all parts of the United States have been considered in compiling the list. (Although Mr. Graham's original paper included a list of 400 species, the list here is condensed into 127, all illustrated, which include most of the legumes used in agriculture and sold commercially as seed.—Ed.)

The following pages present information about legumes and their usefulness in soil conservation. It is not a nursery handbook, nor is it a botanical manual. For identification the reader must refer to manuals covering the region in which he is working; consequently, no keys are included and only synoptic facts of botanical description, growth, and range are given.

The Leguminosae, including trees, shrubs, and herbs, constitutes a plant family of world-wide distribution. The flowers vary from regular form, with the sepals and petals alike, to a highly irregular form in which they assume the shape of the typical pea flower, with the five petals highly differentiated. In the pea flower the upper petal forms the broad standard or banner; the two lateral ones, more or less parallel with each other, form the two wings; and the lower two are united into the keel. By far the greater number of species in the family have flowers exhibiting some modification of this irregular form. The arrangement of the stamens likewise varies. They are usually distinct and frequently numerous

SEED TRADE BUYERS GUIDE wishes to gratefully acknowledge its indebtedness to Mr. Graham and the U. S. Soil Conservation Service for the text and illustrative material contained in the following pages. More complete information, including the listing of 400 different legumes may be obtained in Miscellaneous Publication No. 412 by the USDA.

in the regular flowers, but in the irregular blossoms they are usually 10 in number, united at the base and clustered within the keel of the flower.

Although there are marked differences in the flowers, the chief character that associates various leguminous plants is the type of fruit, the pod or legume characteristic of the Leguminosae. This fruit is developed from a simple pistil, and at maturity usually splits along two opposite longitudinal sutures. Frequently it splits with considerable force the two halves twisting and throwing the seeds some distance.

The leaves of legumes vary fully as much as the flowers, for although usually alternate, they may be simple, trifoliate, palmately or digitately divided, or variously pinnate. Simply pinnate leaves may have even or odd numbers of leaflets, hence the terms "even-pinnate" and "odd-pinnate." Odd-pinnate leaves may have the terminal leaflet transformed into a tendril, as in the garden pea. Pinnate leaves may be further divided into twice pinnate, or bi-

pinnate, leaves or still further into thrice pinnate, or tripinnate, forms.

Three subfamilies, distinguished largely on the basis of flower differences, are recognized in the Leguminosae. In each of these subfamilies, the genera listed in this publication are as follows:

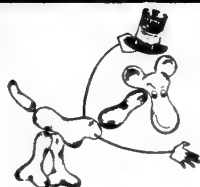
Mimosa subfamily, Mimosoideae (small regular or nearly regular flowers, usually in many-flowered clusters) embracing *Acacia*, *Albizia*, *Calliandra*, *Desmanthus*, *Leucaena*, *Lysiloma*, *Mimosa*, *Neptunia*, *Pithecellobium*, *Prosopis*, and *Schrankia*.

Cassia or senna subfamily, Caesalpinioideae (large, usually somewhat irregular flowers, usually not in clusters) embracing *Cassia*, *Ceratonia*, *Cercidium*, *Cercis*, *Chamaecrista*, *Gleditsia*, *Gymnocladus*, *Hoffmanseggia*, *Parkinsonia*, and *Poinciana*.

Pea or bean subfamily, Papilionoideae (very irregular flowers typical of the family, such as the pea flower) embracing all other genera.

The Krameriaceae, which is included because it is frequently treated with the Leguminosae, differs from that family, among other characters, by the fact that the fruits do not split open as do legumes.

The scientific nomenclature employed in this publication conforms with the International Rules of Botanical Nomenclature. The only new nomenclature proposed is the combination *Centrosema arenicolum*.



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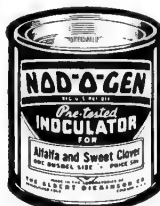
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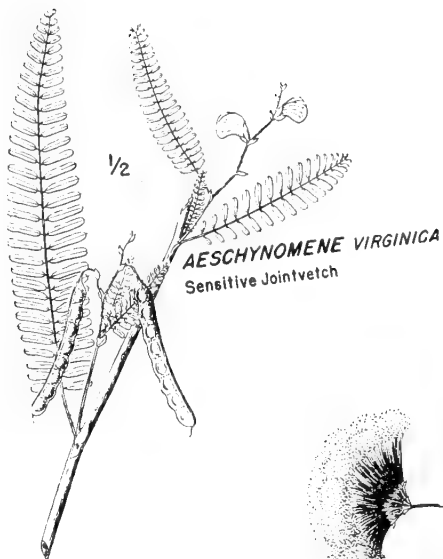
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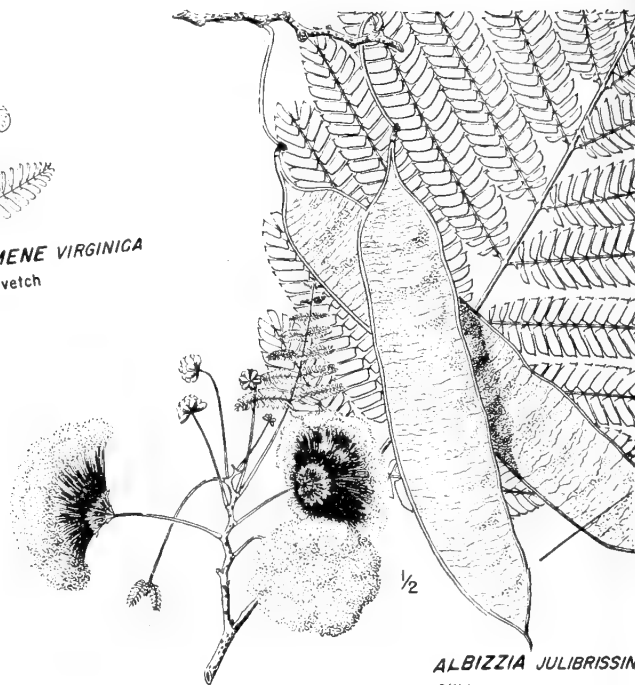
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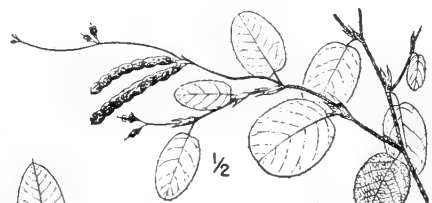
*AMPHICARPA BRACTEATA*  
American Hogpeanut



*AESCHYNOMENE VIRGINICA*  
Sensitive Jointvetch



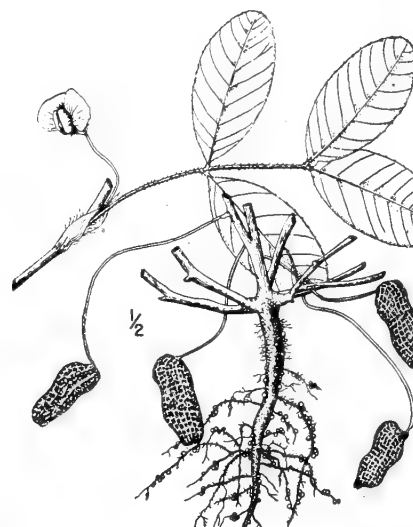
*ALBIZZIA JULIBRISSIN*  
Silktree



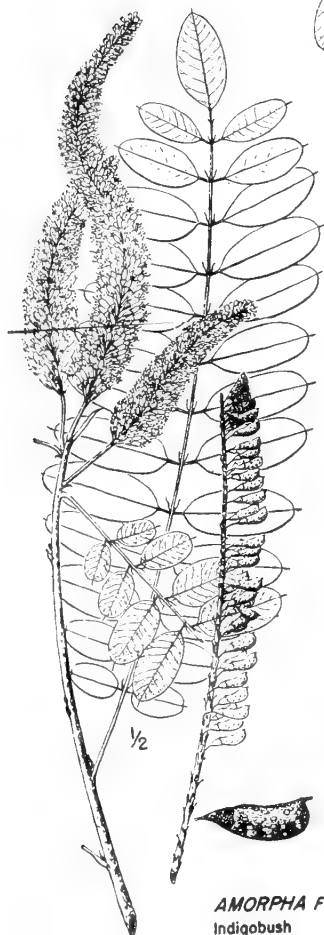
*ALYSICARPUS VAGINALIS*  
Alyceclover



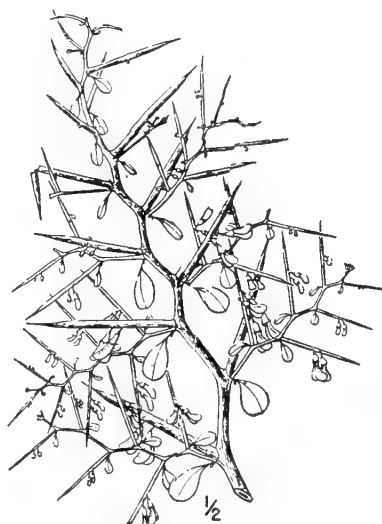
*ANTHYLLIS VULNERARIA*  
Kidneyvetch



*ARACHIS HYPOGAEA*  
Peanut



*AMORPHA FRUTICOSA*  
Indigobush



*ALHAGI CAMELORUM*  
Camelthorn



*ASTRAGALUS CRASSICARPUS*  
Groundplum



*ACACIA GREGGII*  
Catclaw Acacia



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- Vetches
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PHOENIX, ARIZONA

## Description of Legumes

**Acacia greggii** Gray (CATCLAW ACACIA)—A drought-resistant shrub or small tree with short curved spines and dense cylindrical clusters of fragrant cream-yellow flowers. It is known also as long-flowered catclaw, devil's claw, Gregg acacia, paradise flower, Texas mimosa, and uña de gato (claw of cat). The species occurs from Texas to California and grows best on dry, sunny, well-drained sites.

**Aeschynomene virginica** (SENSITIVE JOINTVETCH)—An erect herbaceous annual 2 to 5 feet high with pinnate leaves and rather large reddish-yellow flowers. It occurs along river banks throughout the Coastal Plain from Pennsylvania and New Jersey to Florida and Louisiana and is also known as shy-leaves. It prefers moist light soil and is a common rice-field weed.

**Albizia julibrissin** Durazzini (SILK-TREE)—A medium-sized tree, with silky heads of pink flowers, native to warm temperate Asia from Persia to Japan. It is a hardy ornamental grown in the United States as far north as Washington, D. C. In the Southern States it is commonly called mimosa. Because of its rapid growth, attractive, finely divided leaves, and odd flowers it is widely used as an ornamental.

**Alhagi camelorum** Fisch (CAMELTHORN)—A low spiny shrublike perennial with bright red flowers, native from the Caucasus to the Himalayas. It has been introduced to this country within the past 25 years and is now adventive in the Southwest and southern California, especially in date plantings and alfalfa fields. The plant is apparently relished by horses. It is an aggressive species, reproducing by seeds and deep root-stocks.

**Alysicarpus vaginalis** DC (ALYCECLOVER)—A native of the East Indies now grown as a summer cover crop in parts of Florida, where it reseeds annually and so maintains a perennial cover. It is adapted to dry, sandy loam soils and is useful as a hay and pasture plant. It is a creeping annual with stems 1 to 3 feet long, unifoliate leaves, varying greatly in shape, but usually broadly ovate and about 1 inch long, and crowded racemes of 6 to 12 rosy or pale-purple flowers.

**Amorpha fruticosa** L. (INDIGOBUSH)—A very variable branching shrub up to 15 feet in height, with spikes of white to blue or deep purple flowers. It is also known as bastard-indigo and river-locust. It has been much planted in the Great Plains, where it is used in windbreak borders and buffer strips for controlling wind erosion.

**Amphicarpa bracteata** (AMERICAN HOG-PEANUT)—A twining slender perennial vine with trifoliate leaves and clusters of purplish-brown flowers. It is also known as wild peanut and mouse bean and occurs in rich, moist woodlands and thickets from Maine to Florida, west to Texas and the Dakotas. The vines are eaten by livestock and the underground pods by hogs.

**Anthyllis vulneraria** L. (KIDNEYVETCH)—A deep-rooted hardy perennial Eurasian herb about 1 foot high, with pinnate leaves and yellow to deep-red flowers, occurring as an escape near our eastern seaports. It is also known as sandclover and woundwort, and is a forage plant of some value for poor, light, sandy lands in the more northern latitudes, although not grown commercially in this country.

**Arachis hypogaea** L. (PEANUT)—A branched yellow-flowered annual herb 10 to 20 inches high, also known as goober and groundnut. Being sensitive to frost, the peanut cannot be grown commercially north of Washington, D. C., but thrives south of that latitude and westward on sandy loamy soils that have been limed. The green plants are relished by hogs, and the cured tops make excellent forage.

**Astragalus crassicaupus** Nutt (GROUND-PLUM)—A decumbent perennial, once so abundant as to tinge the prairies with the violet-purple color of its flowers and pods. It is still common on the prairies and plains from Montana to Tennessee and New Mexico and it has been locally cultivated as a forage crop. It is also known as buffalo pea and is relished and easily exterminated by livestock; the pods have served in times of stress for human food.

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*BAPTISIA TINCTORIA*  
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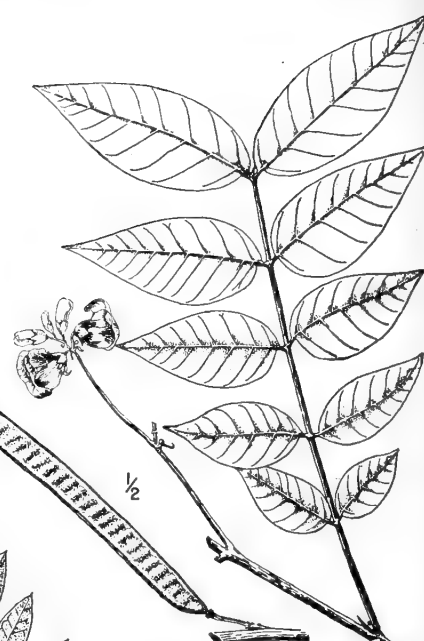
*CALLIANDRA ERIOPHYLLA*  
False-mesquite



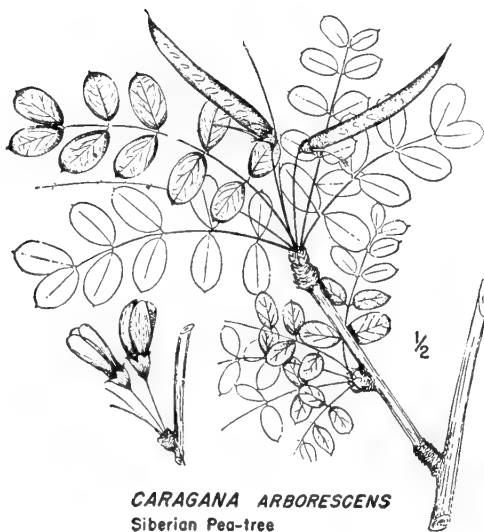
*CERCIDIUM FLORIDUM*  
Blue Palo Verde



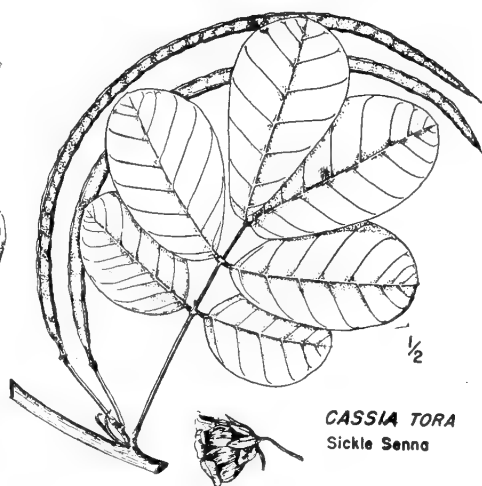
*CASSIA MARILANDICA*  
American Senna



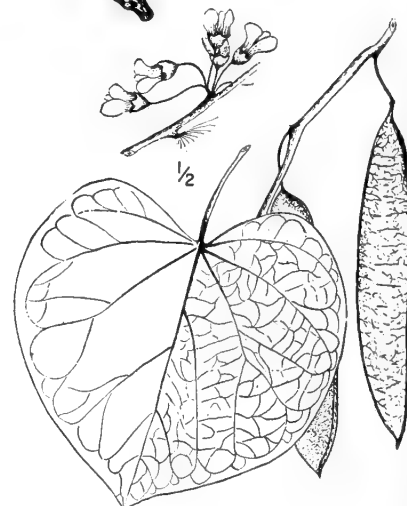
*CASSIA OCCIDENTALIS*  
Coffee Senna



*CARAGANA ARBORESCENS*  
Siberian Pea-tree



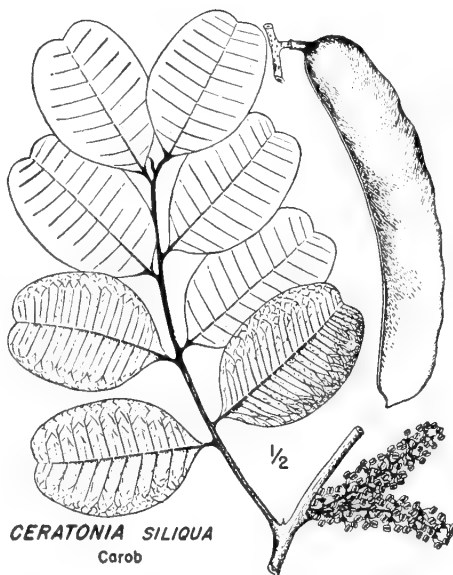
*CASSIA TORA*  
Sickle Senna



*CERCIS CANADENSIS*  
Eastern Redbud



*CENTROSEMA VIRGINIANUM*  
Piedmont Butterfly-pea



*CERATONIA SILIQUA*  
Carob

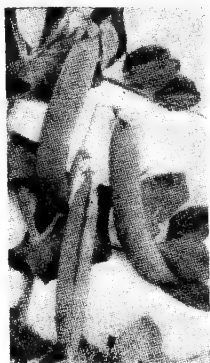


*CHAMAECRISTA NICTITANS*  
Sensitive Partridge-pea



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## Description of Legumes

**Baptisia tinctoria** (YELLOW WILD-INDIGO)  
—A branched yellow-flowered perennial herb  
of dry sandy soil throughout the Eastern  
States. It is a pioneer plant on burned-over  
pine land. Indigo dye is obtained from this  
species, as it is from certain other species  
of the genus. The root and sometimes the  
herb are used medicinally, and the young  
shoots are eaten like asparagus.

**Calliandra eriophylla Benth** (FALSE-  
MESQUITE)—A spreading shrub about 2 feet  
high, also known as mesquitillo, bastard mes-  
quite, and fairy duster, which occurs from  
western Texas to California.

**Cassia tora L** (SICKLE SENNA)—A gla-  
brous annual about 2 feet tall, with yellow  
flowers sometimes 1 inch broad. It occurs  
along river banks from Pennsylvania to In-  
diana and Missouri, south to Texas and  
Florida. A common weed in our Southern  
States, it is also found throughout the Trop-  
ics, and is sometimes called low senna. Be-  
cause of its vigorous growth, it has been  
recommended as a green manure plant in  
Texas.

**Cassia occidentalis L** (COFFEE SENNA)—  
A much-branched yellow-flowered glabrous  
annual 4 to 6 feet tall. It occurs from Vir-  
ginia to Missouri, south to Florida and  
Texas, and in the Tropics of both hemi-  
spheres. Although often considered a weed,  
this plant is of possible value as a sand  
binder in the Southern States, for it grows  
well in sand and is very heat- and drought-  
resistant.

**Cassia marilandica L** (AMERICAN SENNA)  
—A little-branched pubescent perennial herb  
3 to 8 feet tall.

**Caragana arborescens Lam** (SIBERIAN  
PEA-TREE)—A shrub or small tree up to 20  
feet in height, with bright-yellow ornamental  
flowers. It is best adapted to sandy, alka-  
line soil and sunny situations of the north-  
ern Great Plains, and is rather easily propa-  
gated by seeds, root cuttings, or layers.

**Centrosema virginianum (L) Benth**  
(PIEDMONT BUTTERFLY-PEA) — A perennial  
twining vine with large axillary lavender  
flowers, sometimes cultivated and easily  
grown, blooming the first season from seed.

**Cercidium floridum Benth** (BLUE PALO-  
VERDE)—A drought-resistant compact tree 15  
to 25 feet high that occurs in sandy washes  
or depressions in southern California and  
Arizona.

**Ceratonia siliqua L** (CAROB)—A beauti-  
ful drought-resistant evergreen tree with  
broad glossy dark-green leaves, native to  
the eastern Mediterranean region. In this  
country it is grown largely as an ornamental  
and shade tree in southern Florida and Cali-  
fornia, although in California at least the  
pods are locally ground for cattle food.

**Cercis canadensis L** (EASTERN REDBUD)  
—A tree up to 40 feet, occurring throughout  
the United States east of the ninety-eighth  
meridian. It is sometimes known as Judas-  
tree and in the Northern States is highly  
prized as an ornamental.

**Chamaecrista fasciculata (Michx)**  
*Greene* (SHOWY PARTRIDGE-PEA)—An erect  
or spreading annual herb 1 to 3 feet high,  
with showy yellow flowers sometimes 1 inch  
wide. It occurs in dry fields and meadows  
from Massachusetts to Florida, west to  
South Dakota and New Mexico. It is also  
called prairie senna, large-flowered sensi-  
tive-pea, and dwarf cassia. Sometimes an  
annual lespedeza is sown with it to provide  
a better soil-protecting cover. It is practi-  
cally the only legume occurring on land to  
be devoted to tobacco to which the tobacco  
farmer does not object. In Georgia and  
Florida it is considered an important honey  
plant, often occurring where few other  
honey plants are found and providing nectar  
in late midsummer before autumn honey  
flowers bloom.

**Chamaecrista nictitans (L) Moench**  
(SENSITIVE PARTRIDGE-PEA)—An annual or  
sometimes perennial, erect or decumbent  
herb up to 2 feet in height, with small yel-  
low flowers about one-fourth inch long. It  
occurs in dry or moist, sandy soil from  
Maine to Georgia, west to Texas and Kan-  
sas.

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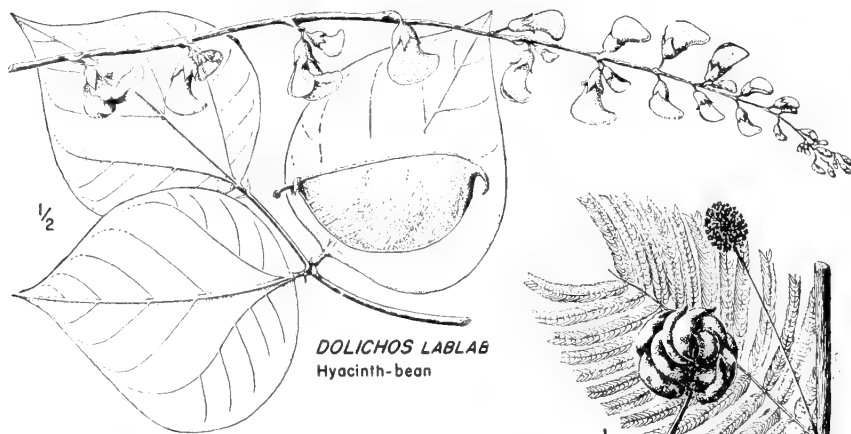
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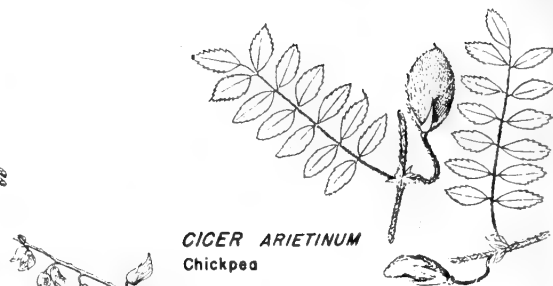
MONTANA



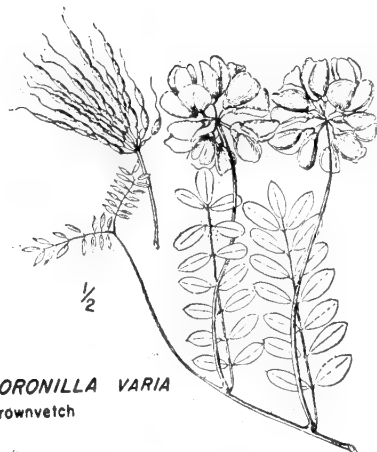
*DOLICHOS LABLAB*  
Hyacinth-bean



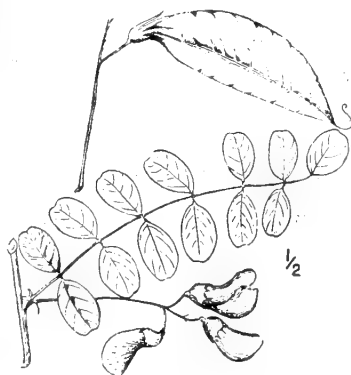
*DESMANTHUS ILLINOENSIS*  
Illinois Desmanthus



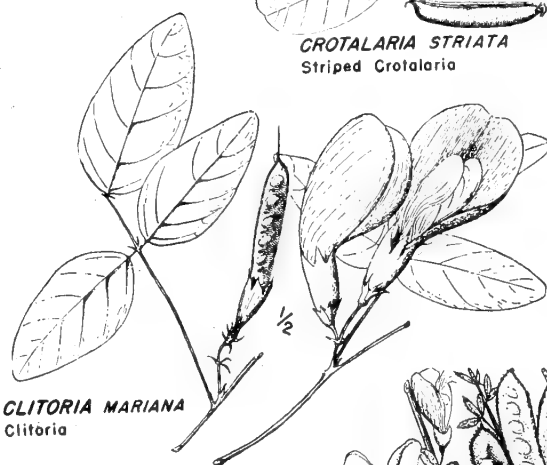
*CICER ARIETINUM*  
Chickpea



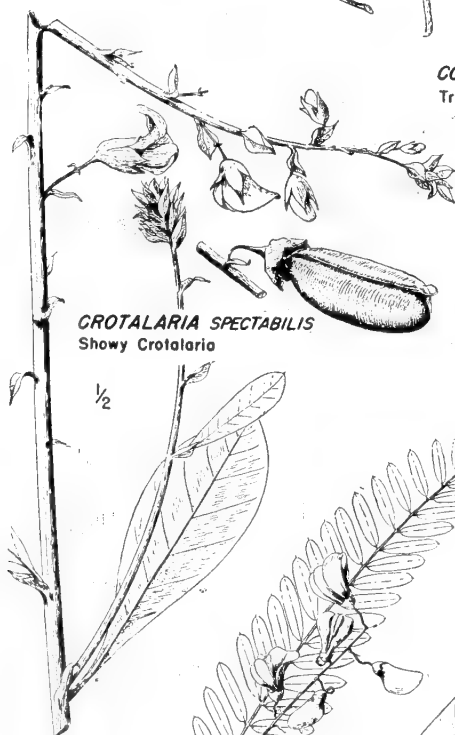
*CORONILLA VARIA*  
Crownvetch



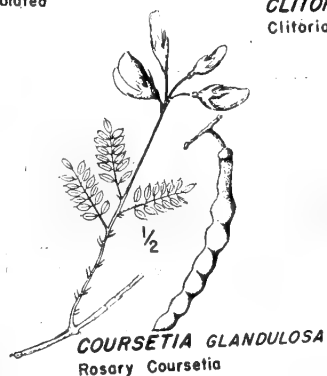
*COLUTEA ARBORESCENS*  
Tree Colutea



*CLITORIA MARIANA*  
Clitoria



*CROTALARIA SPECTABILIS*  
Showy Crotalaria



*COURSEZIA GLANDULOSA*  
Rosary Coursetia



*CYTISUS SCOPARIUS*  
Scotch Broom



*DAUBENTONIA DRUMMONDII*  
Rattle-box



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*CANAVALIA ENSIFORMIS*  
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## Description of Legumes

**Canavalia ensiformis DC (JACKBEAN)**—A coarse, bushy, or climbing annual herb, with purple flowers, introduced from the West Indies and grown in the Southern States to a limited extent as a forage plant. The pods make good snap beans when less than 6 inches long, and the beans themselves are reputedly used as a coffee substitute. It is also known as chickasaw-lima, swordbean, and sabrebean.

**Cicer arietinum L (CHICKPEA)**—A hairy bushy Eurasian annual about 2 feet high, sometimes called garbanzo, adapted especially to semiarid areas. The herbage is considered poisonous to livestock. It is much grown in southern Europe, Asia, and Mexico for its seeds, which are used for cattle and human food. In India it is a staple crop, called gram, and annually occupies some 14 million acres of land.

**Clitoria mariana L (CLITORIA)**—An erect or ascending occasionally twining trifoliate hardy perennial with large pale blue or pinkish flowers about 2 inches long. It has also been called butterfly-pea and occurs in dry sandy soil from New York to Florida, west to Missouri, Texas, and Arizona.

**Colutea arborescens L (TREE COLUTEA)**—A yellow-flowered shrub native to southern Europe and northern Africa, sometimes 15 feet in height. It is also called bladder-senna.

**Coronilla varia L (CROWN VETCH)**—An herbaceous perennial, with pinnate leaves and pinkish-white flowers in long-stalked clusters. In the eastern United States it is used as a hardy, trailing border plant in gardens.

**Coursetia**—A genus including more than a dozen species of trees and shrubs, largely of South and Central America. Two species, both shrubs or small trees, occur in the United States. One of these is *Coursetia axillaris* C. and R., known as Texas coursetia and baby bonnets, which is found in southern Texas. The other is *Coursetia glandulosa* Gray (*C. microphylla* Gray), the rosary coursetia, of southern Arizona.

**Crotalaria spectabilis Roth (SHOWY CROTALARIA)**—A tall branching annual, with showy yellow flowers and large simple obovate leaves. It is native to India, but is now grown throughout the Tropics and locally in this country, where it occurs as an escape from Virginia to Florida. It is used as a green manure and cover crop in sandy well-drained soils and has proved especially valuable in Florida tung and citrus groves before the trees are tall enough to produce much shade.

**Crotalaria striata DC (STRIPED CROTALARIA)**—An introduction from eastern Africa used somewhat as a green manure and cover crop in the South. It has large trifoliate leaves, and the yellowish flowers are boldly streaked with purplish-brown; hence the vernacular name here applied to the species.

**Cytisus scoparius (L) Link (SCOTCH BROOM)**—An evergreen shrub up to 10 feet in height, producing masses of brilliant yellow flowers in early Spring. It has been introduced from Europe and is established in the northeastern and northwestern United States.

**Daubentonia drummondii Rydb (RATTLE-BOX)**—A shrubby perennial, with pale-yellow flowers and narrow pinnately compound leaves that have as many as 60 leaflets.

**Desmanthus illinoensis Michx (ILLINOIS DESMANTHUS)**—An erect or ascending herbaceous perennial up to 3 feet in height, with flowers and leaves similar to those of the preceding species.

**Dioclea multiflora (BOYKIN DIOCLEA)**—A perennial purple-flowered shrubby climber, the only member of the genus found in this country. It occurs on shaded river banks from Georgia to Arkansas and Louisiana.

**Dolichos lablab L (HYACINTH-BEAN)**—A species of the Indian tropics, also called bonavist, black-bean, and Egyptian bean, which has been used since ancient times in Africa and southern Asia much as cowpeas are used in the United States.

(Continued on page 34)

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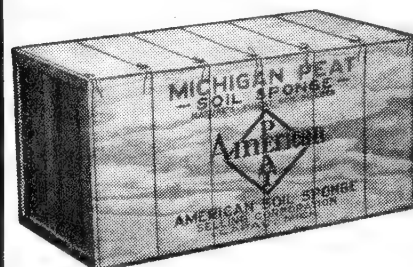
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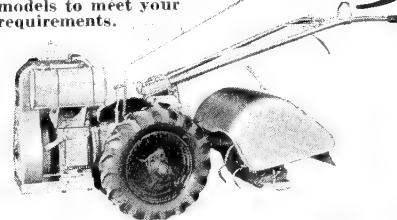
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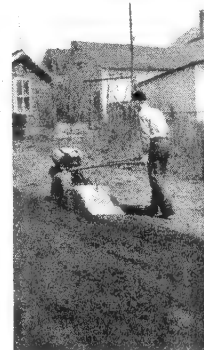
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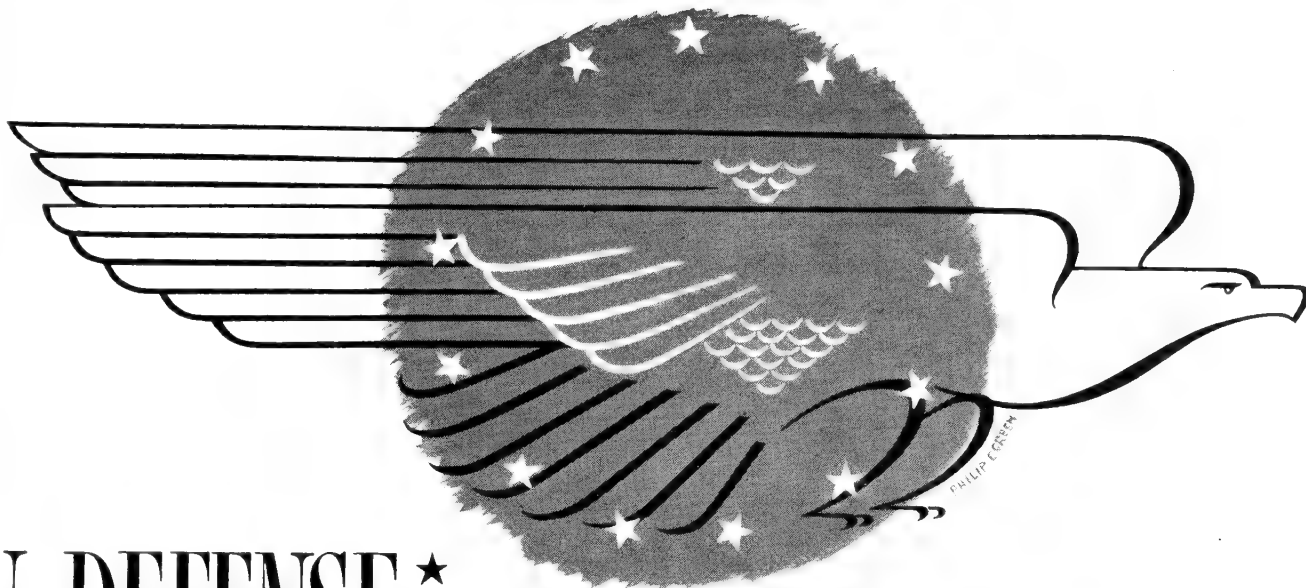
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NUTRIENT	BEST SOURCES OF NUTRIENTS		SOME CONDITIONS* WHICH HAVE BEEN CAUSED BY LACK OF NUTRIENT OR CURED BY FEEDING NUTRIENT
	Plant Sources	Animal Sources	
<b>Vitamin A</b>	Wild greens Leaf lettuce Green cabbage Sweet potatoes Mustard, turnip, and beet leaves	Escarole Spinach Collards Tomatoes Squash Kale	Liver Egg yolk Butter Cream Milk, whole
<b>Vitamin A</b>			Night blindness, sensitivity of eyes to bright light. Dryness and scaliness of skin. "Goose-pimple" skin, ingrown hair.
<b>Thiamin (vitamin B<sub>1</sub>)</b>	Whole-grain products—bread, flour, cereals Bran Wheat germ Beans—soy, navy, and lima Peas	Pork, lean Liver Kidney Heart Muscle meats Fish Eggs Milk	Poor appetite, constipation. Tiredness, low capacity to do work. Neuralgia, tingling in feet and hands; nervousness. Some types of heart trouble. Dropsy, sleeplessness, delirium tremens.
<b>Riboflavin</b>	(None comparable to animal sources)	Milk Liver Kidney Heart Muscle meats Eggs	Eyes that burn, itch, tire easily or are sensitive to bright light; pink tinge surrounding iris. Blackheads and "whiteheads," oily skin, tiny blood vessels visible on face. Sore lips with cracks at corners. Purplish color of tongue. Decreased resistance to infections.
<b>Nicotinic acid</b>	Spinach Kale Collards Leaf lettuce Green cabbage	Liver Kidney Muscle meats Fish Milk Eggs	Sore mouth and tongue, burning of throat, alternate constipation and diarrhea, pain in the region of the breast bone. Rough, chapped skin particularly in winter. Sleeplessness, emotional instability, hysteria, delirium. Decreased resistance to infections.
<b>Pyridoxin (vitamin B<sub>6</sub>)</b>	Whole-grain products—bread, flour, cereals Bran Wheat germ Beans and peas	Muscle meats Fish	Some types of shaking palsy, rigidity of muscles, lack of facial expression. Sleeplessness, nervousness, poor appetite. Weakness.
<b>Ascorbic acid (vitamin C)</b>	Oranges Grapefruit Strawberries Tomatoes Sprouted beans Raw vegetables Potatoes, white	(None comparable to plant sources)	Tiredness, decreased capacity to do work, laziness, skin hemorrhages, spongy, bleeding gums. Poor healing of cuts and wounds. Serious after-effects of disease.
<b>Tocopherol (vitamin E)</b>	Oils from seeds, corn, cottonseed Green leafy vegetables Whole-grain products Beans and peas	Egg yolk	Muscle weakness, some types of muscle paralysis. Sterility.
<b>Vitamin K</b>	Spinach Kale Collards Green cabbage Tomatoes	(None comparable to plant sources)	Slow clotting of blood, particularly in first ten days of life and in obstructive jaundice. Excessive loss of blood at childbirth. Hemorrhages following operations.
<b>Unsaturated fatty acids</b>	Oils from seeds	Lard Liver Fat pork Egg yolk	Eczema. Scaliness of skin.
<b>Protein</b>	Dried peas and beans, particularly soybeans Corn, wheat, and oat products	Milk Cheese Eggs Liver Kidney Muscle meats	Tiredness, general weakness, laziness, anemia, dropsy. Serious after-effects of disease.
<b>Calcium</b>	(None comparable to milk or cheese)	Milk and cheese	Poorly calcified bones and teeth.
<b>Iron</b>	Whole-grain products Bran Green leafy vegetables	Liver Eggs Muscle meats	Tiredness, general weakness, laziness. Anemia. Slow progress in school and mental dullness.

\* Many of these conditions can be caused by other means than faulty food habits.



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**SQUASH**



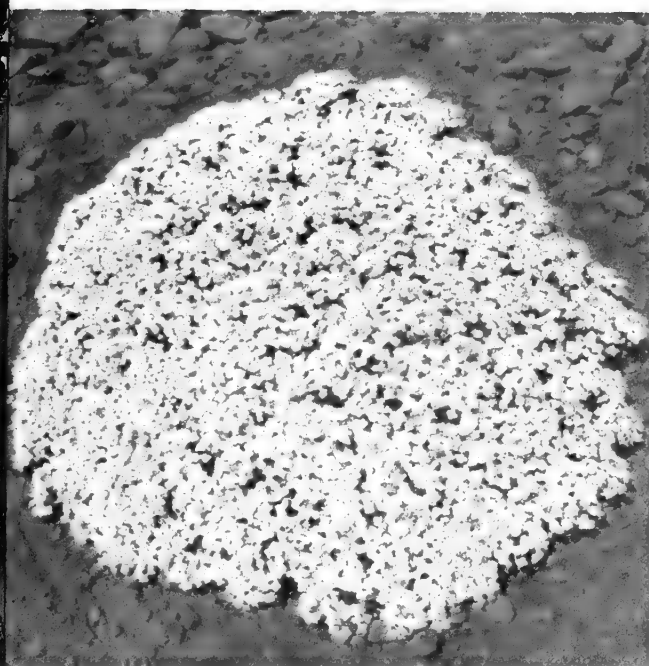
## Schmidt Lithograph Co.

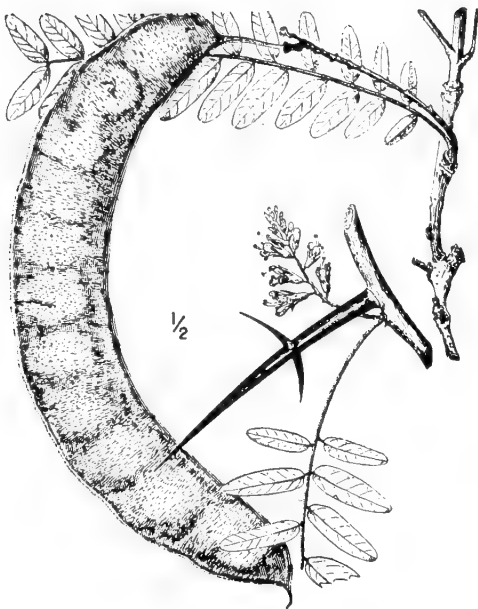
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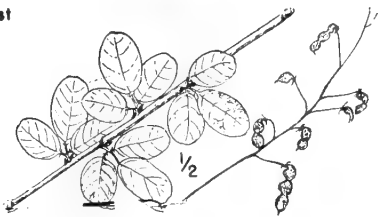
*Write for samples*

**ALYSSUM**





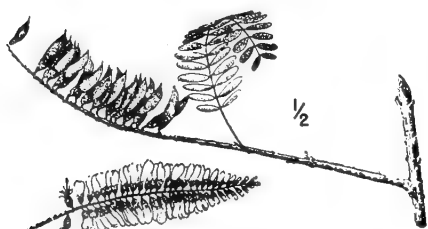
*GLEDITSIA TRIACANTHOS*  
Honeylocust



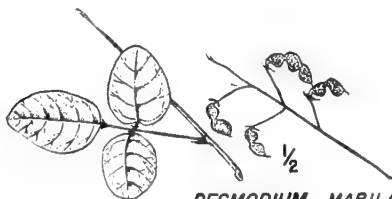
*DESMODIUM CILIARE*  
Littleleaf Tickclover



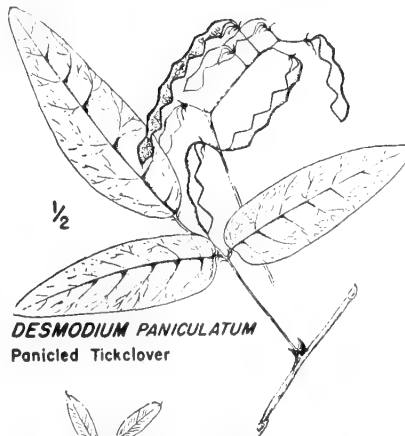
*GALACTIA VOLUBILIS*  
Downy Milkpea



*EYSENHARTIA POLYSTACHYA*  
Kidneywood



*DESMODIUM MARILANDICUM*  
Maryland Tickclover



*DESMODIUM PANICULATUM*  
Panicked Tickclover



*GALEGA OFFICINALIS*  
Common Goatsrue



*ERYTHRINA FLABELLIFORMIS*  
Southwestern Coralbean



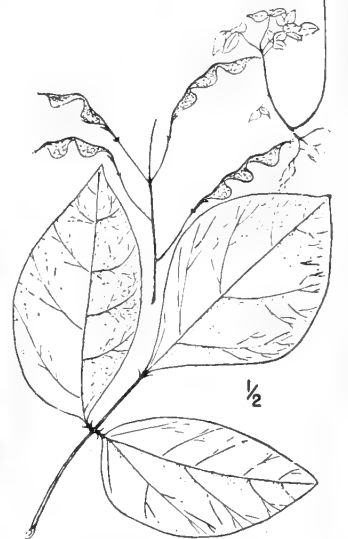
*DESMODIUM TORTUOSUM*  
Florida Beggarweed



*GENISTA TINCTORIA*  
Woadwaxer



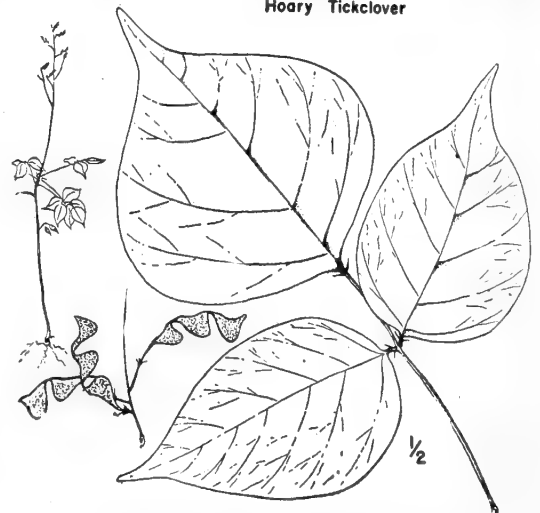
*DESMODIUM DILLENII*  
Dillen Tickclover



*DESMODIUM NUDIFLORUM*  
Borestem Tickclover



*DESMODIUM CANESCENS*  
Hoary Tickclover



*DESMODIUM ACUMINATUM*  
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## Description of Legumes

**Desmodium acuminatum Michx** (SHOWY TICKCLOVER)—A perennial 1 to 5 feet tall, with the leaves clustered about midway on the flowering stem, which bears rather showy purple flowers. It occurs in dry sandy or rich woodland situations throughout the eastern United States.

**Desmodium canescens (L) DC** (HOARY TICKCLOVER)—An erect much-branched hairy perennial 3 to 5 feet tall, occurring in rich, moist woodlands east of the 100th meridian.

**Desmodium ciliare (Muhl) DC** (LITTLE-LEAF TICKCLOVER)—A bushy perennial 1 to 3 feet tall, occurring on dry open sites throughout the eastern United States.

**Desmodium dillenii Darl** (DILLEN TICKCLOVER)—An erect perennial 2 to 3 feet tall, with greenish to lavender flowers, occurring in woods throughout the eastern United States.

**Desmodium marilandicum** (MARYLAND TICKCLOVER)—A slender perennial occurring in dry shaded areas throughout the eastern United States.

**Desmodium nudiflorum** (BARESTEM TICKCLOVER)—A slender perennial up to 3 feet in height. It differs from most species of the genus in that it consists of a leafless flower stalk arising from the base of the plant, with the leaves clustered on a separate sterile shoot. It occurs in dry woods throughout the eastern United States.

**Desmodium paniculatum** (PANICLED TICKCLOVER)—A slender perennial 2 to 4 feet tall, with narrow leaflets and purplish flowers, occurring throughout the eastern United States.

**Desmodium tortuosum** (FLORIDA BEGGARWEED)—A sparse annual or rarely perennial herb also known as Cherokee clover and purple tick trefoil. On good soil it may be 5 to 10 feet high and somewhat woody. It is widely distributed in tropical America, occurring naturally in the Coastal Plain of Florida and Georgia. It is sometimes grown as a forage crop.

**Erythrina flabelliformis Kearney** (SOUTHWESTERN CORALBEAN)—A spiny shrub or small tree with elongate scarlet flowers. It is also known as chilicotte or Indian bean. It occurs in southern New Mexico and Arizona.

**Eysenhardtia polystachya** (KIDNEYWOOD)—A shrub or small tree with pinnate leaves and spikes of small white aromatic flowers. It occurs from southern Texas to Arizona and is also known as rock brush, false-mesquite and, by the Mexicans, as palo dulce. It is considered good goat browse and is relished by horses and cattle throughout summer and fall.

**Galactia volubilis** (DOWNY MILKPEA)—A lavender-flowered prostrate perennial herb frequently climbing over bushes, and occurring in sandy soils from New York to Florida westward to Tennessee and Texas. It is a variable species and varietal forms have been described.

**Galega officinalis L** (COMMON GOATS RUE)—A deep-rooted Eurasian perennial with stout stems 3 to 4 feet high, racemes of purplish flowers and pinnate leaves. It occurs as an escape in Kansas, Colorado, and Utah, where it is grown as a garden ornamental.

**Genista tinctoria L** (WOADWAXEN)—A yellow-flowered European shrubby perennial also known as dyer's greenweed or broom. It is escaped and naturalized on sterile hills and roadsides in the northeastern United States.

**Gleditsia triacanthos L** (HONEYLOCUST)—A tall tree of rich woods and floodplains from western New York to Georgia, west to Texas and eastern Nebraska. It has bipinnate leaves, clusters of greenish flowers, and long, many-seeded pods. It is widely planted in gullies and wood lots for erosion control, and in windbreaks to control wind erosion in the Great Plains. Stock eat the young growth and pods, which are high in sugar content.

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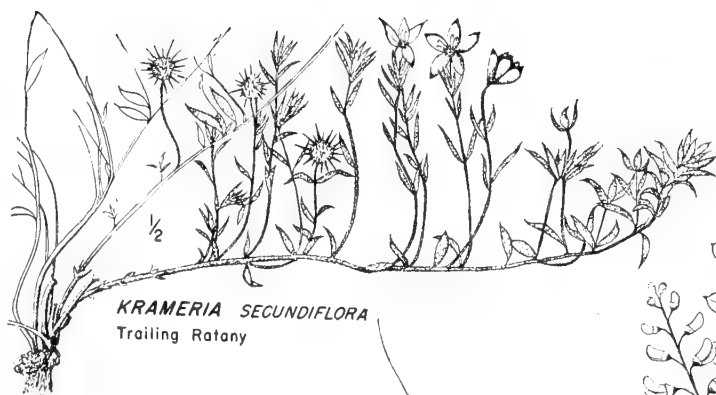
GREEN PEAS

SPLIT PEAS

etc.



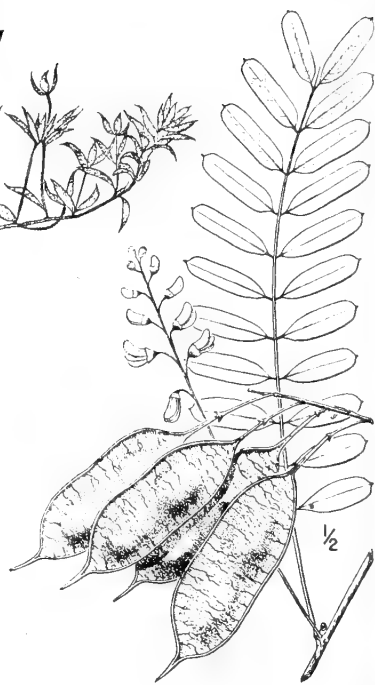
*GLYCYRRHIZA LEPIDOTA*  
American Licorice



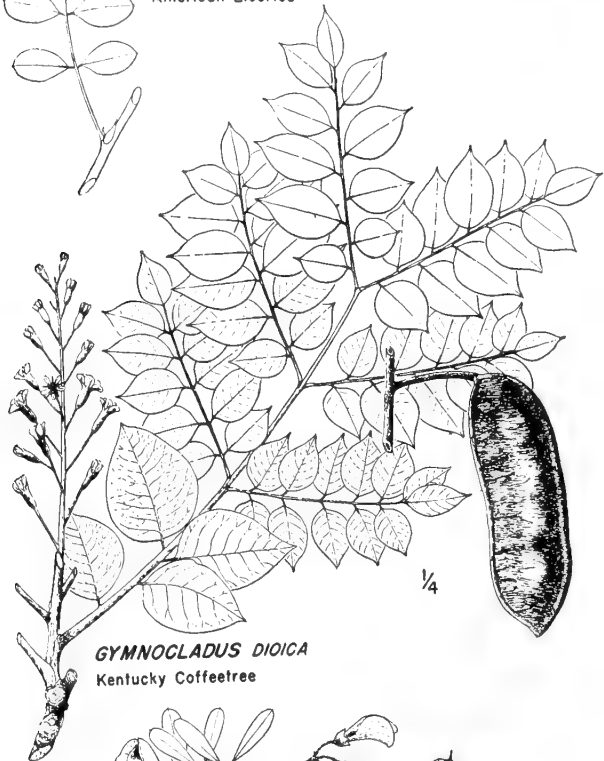
*KRAMERIA SECUNDIFLORA*  
Trailing Ratany



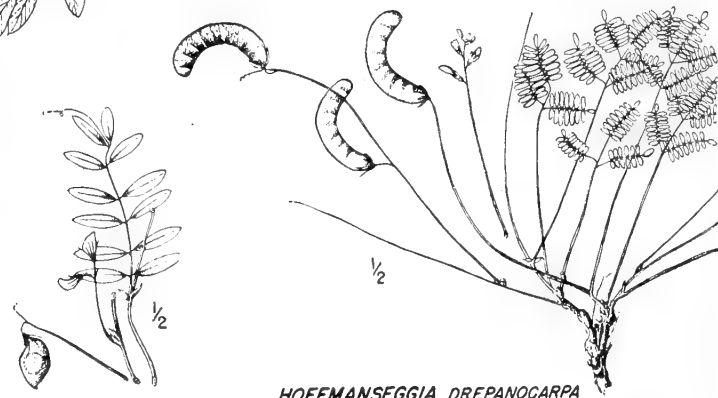
*INDIGOFERA CAROLINIANA*  
Carolina Indigo



*GLOTTIDIUM VESICARIUM*  
Bogpod



*GYMNOCLADUS DIOICA*  
Kentucky Coffeetree



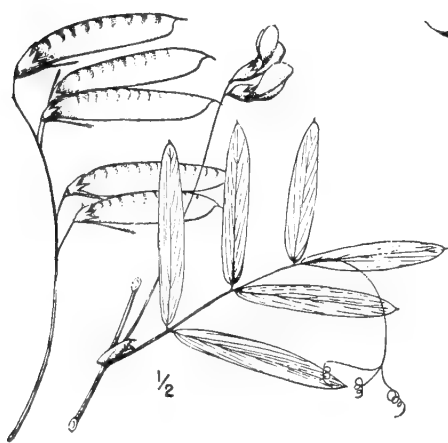
*HOFFMANSEGGIA DREPANOCARPA*  
Sicklepod Rushpea



*HALIMODENDRON HALODENDRON*  
Salt-tree



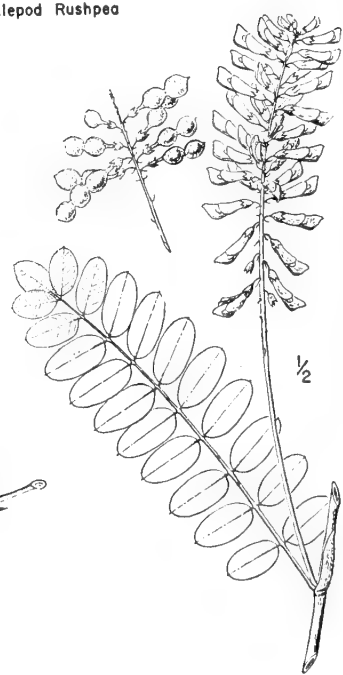
*LENS ESCULENTA*  
Lentil



*LATHYRUS PALUSTRIS*  
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*HEDYSARUM BOREALE*  
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## Description of Legumes

**Glottidium vesicarium** (BAGPOD)—A tall widely branching annual herb up to 12 feet in height, with yellow flowers and pinnate leaves. It is also called bladder pod and occurs on moist sites of the Coastal Plain from North Carolina to Texas. The plant makes good growth in a short time in damp areas on depleted soils and may aid in erosion control if planted with a lower, closer ground cover. Cattle are known to eat the seeds.

**Glycyrrhiza lepidota** Pursh (AMERICAN LICORICE)—The only American species, a perennial herb with axillary clusters of white, yellow, or bluish flowers, pinnate leaves, and prickly pods. It occurs throughout the States west of the Mississippi River in a variety of sites. It is of low palatability, and although shade-tolerant and a good soil binder it is in some places considered a weed, since it spreads rapidly by rootstocks and the prickly pods or burs are a nuisance.

**Gymnocladus dioica** (L) Koch (KENTUCKY COFFEETREE)—A tall unarmed tree with large compound leaves and terminal racemes of whitish flowers. It occurs in rich woods from central New York to Tennessee, west to South Dakota and Oklahoma. The leaves and pods are considered poisonous to cattle and sheep, although cases of poisoning are infrequent.

**Halimodendron halodendron** Voss (SALT-TREE)—A spreading shrub up to 6 feet in height with purplish flowers, also known as Siberian sandthorn, native to the salt steppes of central Asia. It is grown as an ornamental for its handsome profuse flowers.

**Hedysarum**—A genus of some 100 species of perennial herbs or small shrubs of the north temperate region. About 10 occur in the western United States, and one of these, the northern sweetvetch, *Hedysarum boreale* Nutt., extends across the northern plains into the Northeastern States. The plants are sometimes confused with species of *Astragalus* but differ by having jointed pods, gland-dotted leaves, and squarish-tipped flowers. They are sometimes called sullaclovers and sweetvetches, and are of fair palatability, being relished by all classes of livestock.

**Hoffmanseggia drepanocarpa** Gray (SICKLEPOD RUSHPEA)—A species similar to the preceding. It occurs on dry hills from western Texas to Colorado and Arizona.

**Indigofera caroliniana** Walt (CAROLINA INDIGO)—A tall branching perennial herb, with pinnate leaves and yellowish-brown flowers. It occurs in pine woods from North Carolina to Florida and Louisiana.

**Krameria secundiflora** DC (TRAILING RATANY)—A low-spreading perennial, often woody at the base, with simple leaves and red or yellow flowers. It is also called Texas ratany and sandbur and occurs on a great variety of soils from southern Arizona to western Texas northward in the Plains to Kansas. Its widely spreading roots and slender trailing, almost vinelike herbaceous stems, which develop from a woody crown, indicate promise as an erosion-control plant.

**Lathyrus venosus** Muhl (VEINY PEAVINE)—A decumbent or climbing purple-flowered perennial occurring on river banks from New Jersey to Georgia and Texas.

**Lathyrus palustris** L (MARSH PEAVINE)—A slender purple-flowered perennial of moist sites. It occurs from the New England States west to the Pacific Coast and also in Europe and Asia.

**Lens esculenta** L (LENTIL)—A much-branched annual, 1 to 2 feet tall, native to Southern Europe. Its highly nutritious seeds, one or two to the pod, have made it one of the important food plants of man since ancient time. It is only occasionally grown in the United States. The magnifying glass was called a lens because it was shaped like the seed of this plant.



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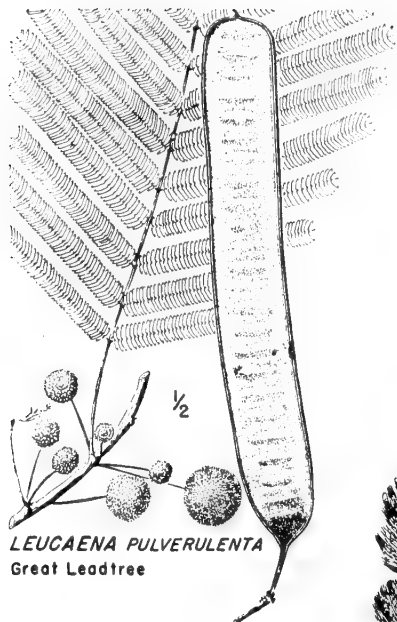
**Clovers**

**and**

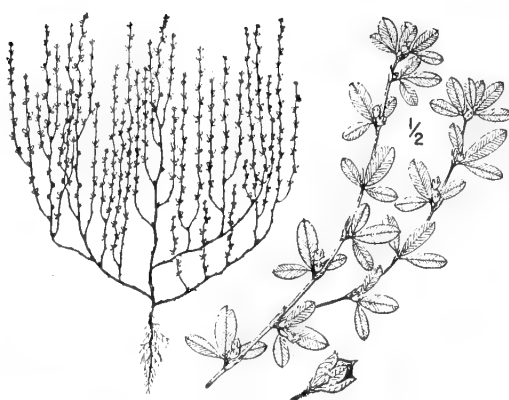
**Alfalfas**

*Inquiries Solicited*

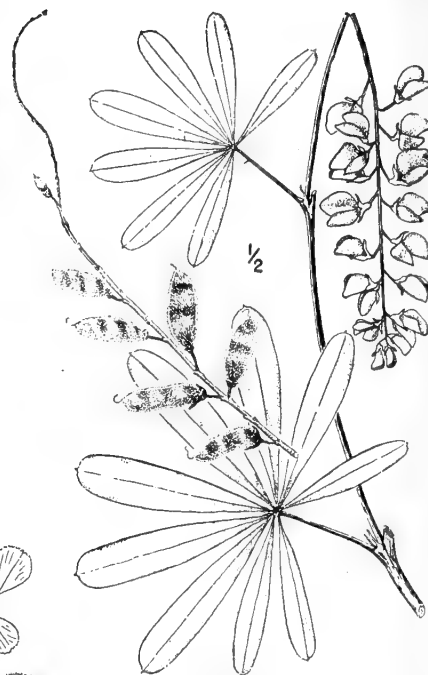
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*LEUCAENA PULVERULENTA*  
Great Leadtree



*LESPEDeza STRIATA*  
Common Lespedeza



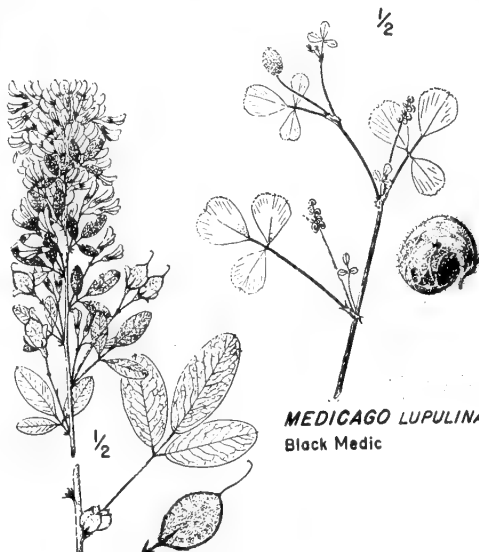
*LUPINUS PARVIFLORUS*  
Lodgepole Lupine



*MEDICAGO HISPIDA*  
California Bur-clover



*LESPEDeza CAPITATA*  
Roundhead Lespedeza

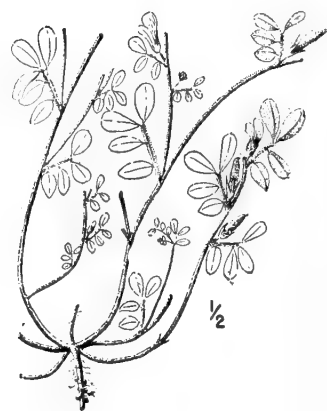


*MEDICAGO LUPULINA*  
Black Medic

*LESPEDeza FRUTESCENS*  
Wand Lespedeza



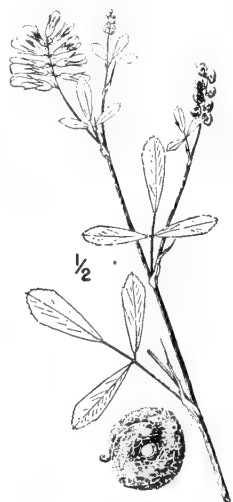
*LESPEDeza BICOLOR*  
Shrub Lespedeza



*LOTUS HUMISTRATUS*  
Foothill Deervetch



*LOTUS AMERICANUS*  
American Deervetch



*MEDICAGO SATIVA*  
Alfalfa



*LESPEDeza VIRGINICA*  
Slender Lespedeza



*LESPEDeza SERICEA*  
Sericea Lespedeza



*LESPEDeza VIOLACEA*  
Violet Lespedeza



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## Description of Legumes

**Lespedeza bicolor Turcz** (SHRUB LESPEDEZA)—A perennial bushy shrub 4 to 10 feet high, with fair-sized purple flowers. It is native to Japan but has been grown for some years as an ornamental in the Eastern States.

**Lespedeza capitata Michx** (ROUNDHEAD LESPEDEZA)—A stiff erect perennial about 3 feet tall, with yellowish-white flowers. It occurs in dry fields and open sandy woods throughout the eastern United States.

**Lespedeza frutescens** (WAND LESPEDEZA)—An erect purple-flowered perennial 1 to 3 feet tall occurring in dry upland soils throughout the eastern United States.

**Lespedeza sericea** (SERICEA LESPEDEZA)—A deep-rooted somewhat bushy perennial about 3 feet high, with greenish-yellow flowers. The leaflets of the trifoliolate leaves are usually broadest at the square-cut tip. A native of Asia, it was first grown in this country in 1896 and is apparently well adapted to conditions from the Gulf States to about 100 miles north of the Ohio River, west to central Kansas and Oklahoma. It has survived several seasons in southern Vermont and southern Michigan and it has withstood winter temperatures of  $-17^{\circ}$  F.

**Lespedeza striata Thunb** (COMMON LESPEDEZA)—A branching annual usually less than 1 foot in height, with blue-purple flowers. The three leaflets are elliptic in shape. They are less broad and the stipules are much less conspicuous than in *L. stipulacea*; furthermore the stem pubescence points downward, not upward as in *L. stipulacea*. Is it native to eastern Asia and was introduced into the southern United States prior to the Civil War. It is frequently called Japan clover.

**Lespedeza violacea (L) Pers** (VIOLET LESPEDEZA)—A much-branched, slender perennial, 1 to 3 feet high, with rather showy violet-colored flowers. It occurs in dry soil throughout the eastern United States.

**Lespedeza virginica (L) Britt** (SLENDER LESPEDEZA)—An erect wandlike or slightly branching purple-flowered perennial of dry soils throughout the eastern United States. It is shade-tolerant, a good soil improver, and a pioneer on bare areas such as shale road cuts.

**Leucaena**—A genus of a dozen species of unarmed trees and shrubs, closely related to *Acacia* and *Mimosa*, and largely confined to tropical and subtropical America.

**Lotus americanus (Nutt) Bisch** (AMERICAN DEERVETCH)—A variable slender-stemmed loosely branched annual 10 to 20 inches high, usually with 3-foliolate leaves and pinkish flowers. It grows in dry sandy soil from Minnesota to Arkansas westward, frequently on acid soil.

**Lotus humistratus Greene** (FOOTHILL DEERVETCH)—A prostrate to ascending diffusely branched woolly annual with 3- to 5-foliolate leaves and yellow flowers. It occurs from southern California to eastern New Mexico and is also known as hill lotus and colchita.

**Lupinus parviflorus Nutt** (LODGEPOLE LUPINE)—A slender perennial, 1 to 3 feet high, with light blue or sometimes white flowers. It occurs in meadows from South Dakota and Colorado to Utah and Montana.

**Medicago hispida Gaertn** (CALIFORNIA BUR-CLOVER)—A yellow-flowered annual naturalized from Europe. It is adapted to climates with mild winters and is most used in California and the other Pacific Coast States as a winter cover and green-manure crop and as a pasture plant.

**Medicago lupulina L** (BLACK MEDIC)—An introduced yellow-flowered European annual escaped in waste places throughout the country. It is also called nonesuch, hop medic, and yellow trefoil.

**Medicago sativa L** (ALFALFA)—A deep-rooted purple-flowered perennial with several stems from a root crown. It is second only to red clover as a forage crop in America. It is known to have been cultivated in Persia about five centuries before Christ and was first grown in the United States in Georgia in 1736, although it was not until it reached California from Chile in 1850 that its use became widespread in this country.

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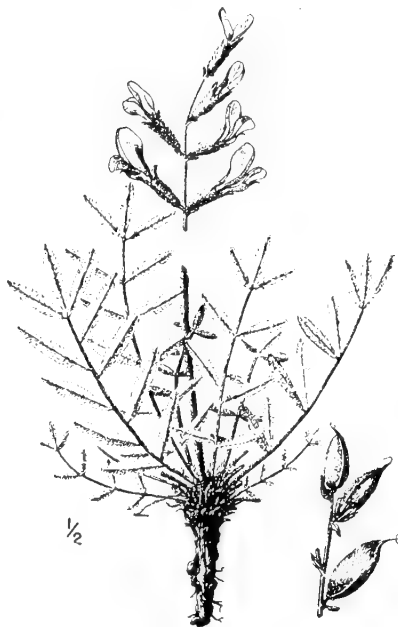
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White Sweetclover



*OXYTROPIS LAMBERTII*  
Crazyweed



*PAROSELA FORMOSA*  
Feather Dolea



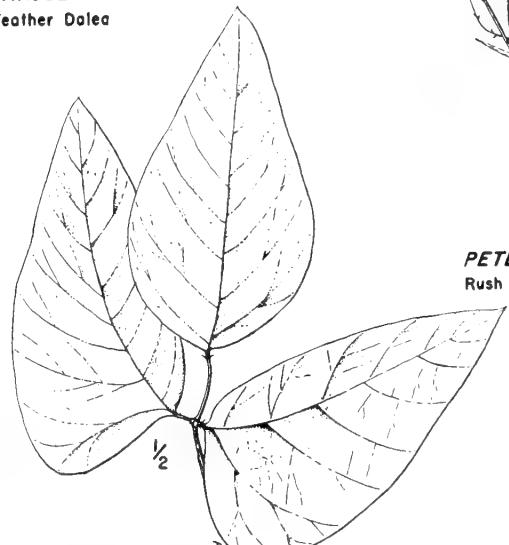
*PETERIA SCOPARIA*  
Rush Peteria



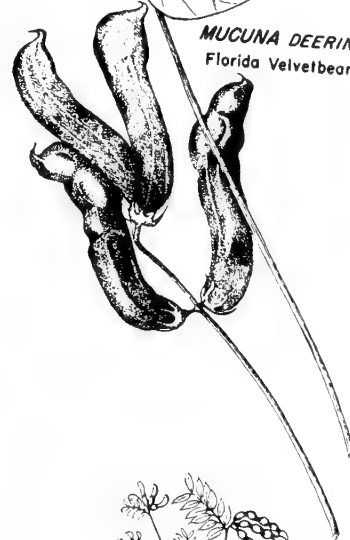
*MIMOSA BIUNCIFERA*  
Catclaw Mimosa



*PARRYELLA FILIFOLIA*  
Dunebroom



*MUCUNA DEERINGIANA*  
Florida Velvetbean



*PAROSELA AUREA*  
Golden Dolea



*OLNEYA TESOTA*  
Tesota



*PETALOSTEMUM CANDIDUM*  
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## Description of Legumes

**Mellilotus alba Desv.** (WHITE SWEETCLOVER)—A white-flowered Eurasian biennial, also known as Bokhara clover, Bokhara melilot, or white melilot, which develops a fleshy, somewhat branched taproot the first year and a fair top growth the second. Vigorous shoots, sometimes 10 feet high, will develop from buds near the root crown. There is an annual variety (*M. alba annua* Coe) known as Hubam clover or annual melilot, which, when seeded alone, grows 5 to 8 feet high and matures a crop in 5 months' time.

**Mimosa biuncifera Benth** (CATCLAW MIMOSA)—A low spiny shrub about 3 feet tall with heads of yellowish-white flowers; it occurs in dry rocky or sandy situations from western Texas to southern Arizona.

**Mucuna deeringiana** (FLORIDA VELVET-BEAN)—A high-climbing annual, or usually so, with large trifoliate leaves, red to purplish green or yellow flowers, and dark-colored pubescent pods. The velvet hairiness of the pods is irritating to the skin of some persons. The flowers are a source of honey. It is grown principally as a summer forage and soil-improving crop in the Southern States.

**Oleaya tesota Gray** (TESOTA)—A small spiny-branched tree, 15 to 20 feet high, with clusters of purplish flowers that appear before the pinnate leaves.

**Onobrychis viciifolia Scop** (SAINFOIN)—A pinkish-flowered long-lived deep-rooted perennial herb of southern Europe, also called holy clover and esparcet. The name sainfoin means literally "healthy hay," and in France the plant is much used for hay; there as well as in England it also serves as the source of the very finest honey. It has not proved very successful as an erosion-control plant in this country.

**Ornithopus sativus Brot** (SERRADELLA)—A slender-stemmed much-branched annual with rose-colored flowers, native of Spain and Morocco. It is cultivated as a forage and green-manure crop in central Europe, although used in this country only in experimental trials, which have not shown promise.

**Oxytropis**—A genus of some 200 species of perennial herbs and shrubs, which are distributed throughout north temperate regions. About 40 species occur in the United States, the great majority of which are native to the Rocky Mountains and adjacent plains. They are much like *Astragalus* but differ by having the keel of the flower prolonged into a beak. The genus includes species poisonous to cattle, as the crazyweed, *Oxytropis lambertii* Pursh.

**Parosela aurea (Nutt) Britt** (GOLDEN DALEA)—A few-stemmed perennial herb about 1½ feet tall, with pinnate leaves and yellow flowers, occurring in the plains and hills from South Dakota to Colorado, Texas, and Missouri.

**Parosela formosa (Torr) Vail** (FEATHER DALEA)—A small drought-resistant much-branched shrub with tiny pinnate leaves. It has been called feather peabush and is a handsome plant when in bloom, for the flowers are rose-colored with yellowish standards. The shrub occurs from Utah and Colorado to Arizona and Texas.

**Parryella filifolia Torr and Gray** (DUNE-BROOM)—A low much-branched drought-resistant shrub of New Mexico and Arizona. It has alternate, odd-pinnate leaves and narrow spikes of small yellowish flowers, which are without petals.

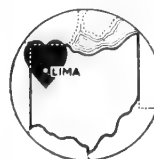
**Petalostemum candidum (Willd) Michx** (WHITE PRAIRIECLOVER)—A white-flowered perennial herb with several erect stems 1 to 3 feet tall, widely distributed in the prairies from Canada to Texas and Louisiana.

**Peteria scoparia Gray** (RUSH PETERIA)—A low spiny herbaceous perennial with rather large, greenish, pink-tinged flowers and pinnate leaves with tiny leaflets deciduous from the rachis. It occurs in sandy areas from western Texas to southern Arizona but is nowhere abundant. It has a small edible tuberous rootstock called camote de monte (mountain sweetpotato).

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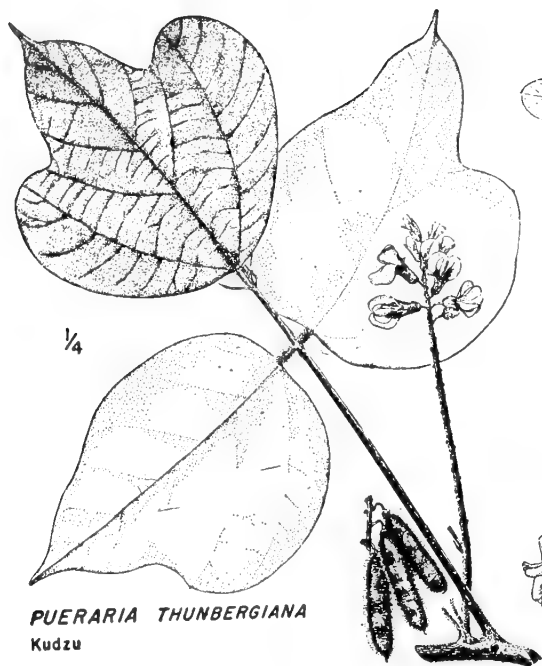
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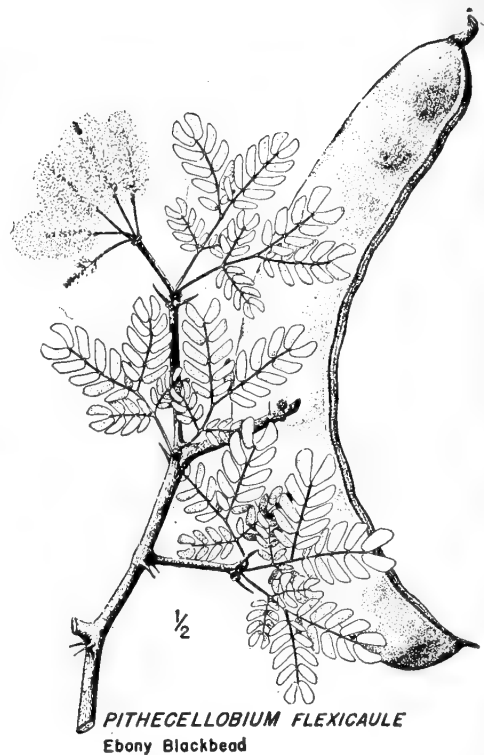
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*PUERARIA THUNBERGIANA*  
Kudzu



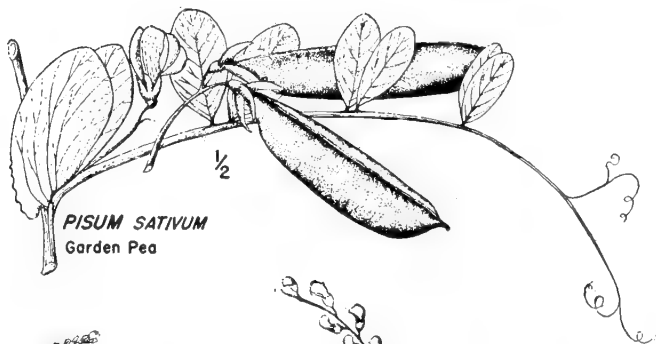
*ROBINIA PSEUDOACACIA*  
Black Locust



*PITHECELLOBIUM FLEXICAULE*  
Ebony Blackbead



*PROSOPIS PUBESCENS*  
Fremont Screwbean



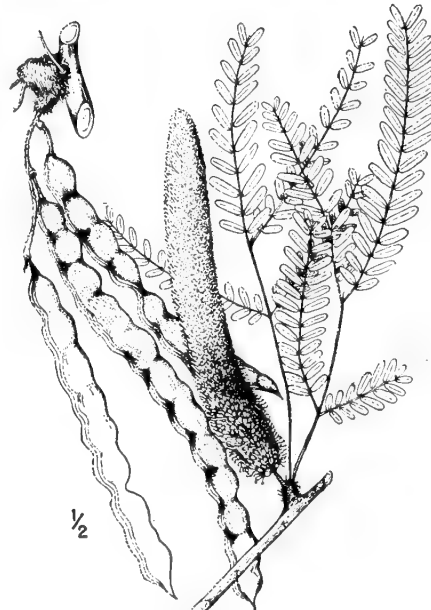
*PISUM SATIVUM*  
Garden Pea



*PSORALEA ESCULENTA*  
Indian Breadroot



*RHYNCHOSIA ERECTA*  
Erect Rhynchosia



*PROSOPIS CHILENSIS*  
Mesquite



*PHASEOLUS POLYSTACHYUS*  
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## Description of Legumes

**Phaseolus polystachyus** (THICKET BEAN)—A branched vine up to 15 feet in length from a perennial root, with purple or whitish flowers. It is one of the few widely distributed species native to the United States, occurring in thickets from Connecticut to Florida, westward to Nebraska and Texas. It has been experimentally used as a roadside erosion-control plant with fair success.

**Pisum sativum** L. (GARDEN PEA)—The garden pea is a white-flowered tendril-bearing annual, native to the Mediterranean region and eastward to the Himalayas.

The field pea (var. *arvense* Poir.) is a cool-weather variety of the garden pea with brown- to black-speckled seeds in place of the green or yellow seeds of the garden pea. It is much grown in Canada; hence the name Canadian field pea. In the South it is used as a green-manure and winter-cover crop and is there known as Austrian Winter pea.

**Pithecellobium**—More than 100 species of trees and shrubs occurring throughout the Tropics and subtropics. About five species are native to the United States, occurring in southern Texas and southern Florida. These include the Ebony blackbead or Texas-ebony, *Pithecellobium flexicaule* (Benth.) Coulter, which has edible seeds and durable wood locally used for fence posts, and the guajillo, huajillo, or blackbead, *Pithecellobium brevifolium* Benth., also of southern Texas, which is of some importance as winter browse for sheep and goats.

**Prosopis chilensis** (Mol) Stuntz (MESQUITE)—A shrub or tree up to 20 feet or more, occurring from southwestern United States to Chile. It is sometimes called algarroba and has bipinnate leaves with small narrow leaflets, sweet-scented, greenish-yellow flowers in long cylindrical racemes and slender pods 4 to 8 inches long borne in drooping clusters.

**Prosopis pubescens** Benth (FREMONT SCREWBEAN)—A shrub or tree of the Southwest, with bipinnate leaves, spikes of yellow flowers, and spirally coiled pods. It occurs from west Texas to southern California.

**Psoralea esculenta** Pursh (INDIAN BREAD-ROOT)—A perennial herb of the Great Plains from Wisconsin to Texas and westward. It is about 2 feet tall, or less, has dense clusters of bluish flowers and palmately 5-parted leaves. In appearance the plant resembles a lupine, but lupines do not have tuberous roots nor gland-dotted leaves.

**Pueraria thunbergiana** (Sieb and Zucc) Benth (KUDZU)—A vigorous fast-growing perennial vine native to Japan and China and grown in the United States from Pennsylvania to Florida. In the Northern States it has been used for some time as an ornamental screen, largely for its dense foliage of large attractive trifoliate leaves. In the Southeastern States it is assuming an important role as forage and for revegetating gullies and other eroded areas. As it does not seed heavily in the United States, it is best propagated from 2-year-old root crowns possessing fleshy roots and sound buds. It may also be grown from 1-year-old seedlings and by noded cuttings from 2-year-old vines. Under favorable conditions it may produce a dense growth in 1 year, but 2 or 3 years are usually necessary for it to develop a ground cover, after which the plant grows profusely and spreads rapidly. Its rapid growth and habit of rooting at the nodes make it especially efficient as an erosion-control plant. Since it climbs readily it must not be planted with trees or shrubs, which it may smother. It can, however, be controlled by plowing or heavy grazing.

**Rhynchosia erecta** (Walt) DC (ERECT RHYNCHOSIA)—An erect rather stout perennial herb 1 to 3 feet tall, with yellow flowers and trifoliate leaves. It occurs in dry soils from Delaware to Florida, Tennessee, and Louisiana.

**Robinia pseudoacacia** L. (BLACK LOCUST)—A tree originally occurring in the Appalachians and Ozark Mountains but now widely cultivated in the United States, southern Canada, and parts of Europe.

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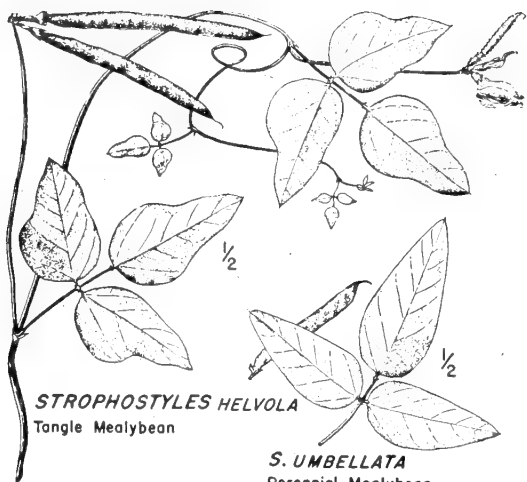
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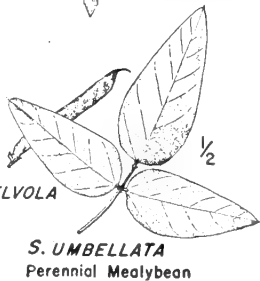


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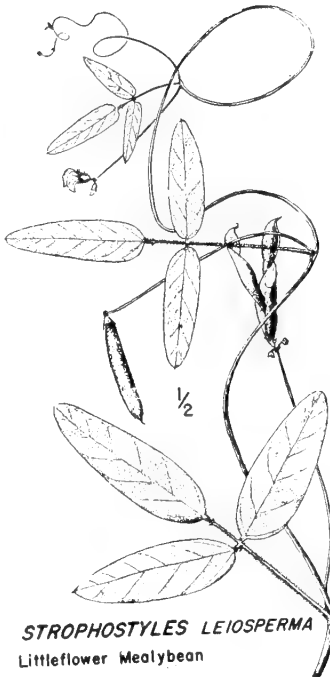
WAKEMAN, OHIO



*STROPHOSTYLES HELVOLA*  
Tangle Mealybean



*S. UMBELLATA*  
Perennial Mealybean

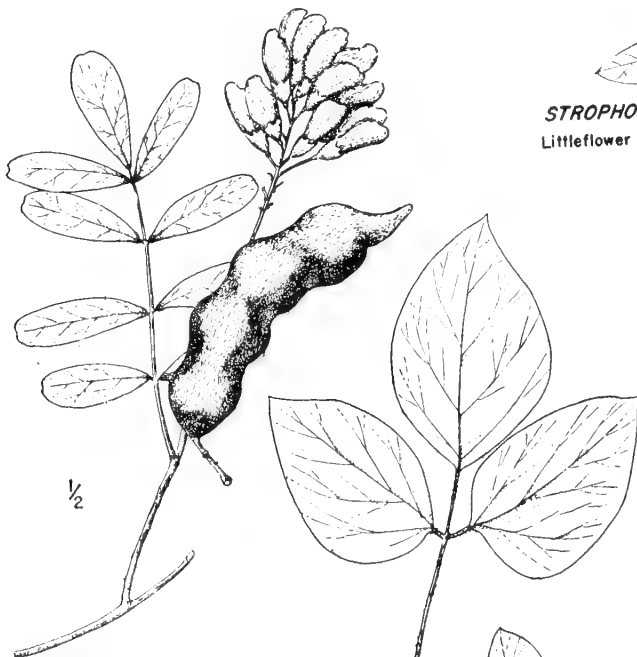
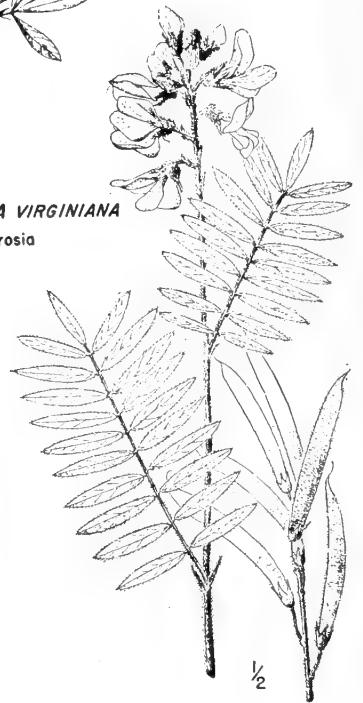


*STROPHOSTYLES LEIOSPERMA*  
Littleflower Mealybean

*STYLOSANTHES BIFLORA*  
Twin Pencillflower



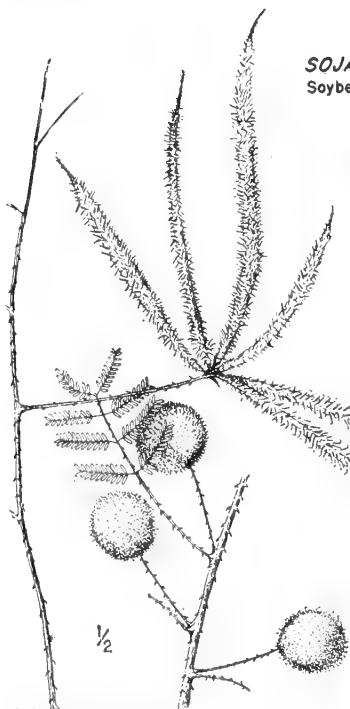
*TEPHROSIA VIRGINIANA*  
Virginia Tephrosia



*SOPHORA SECUNDIFLORA*  
Mescalbean



*TEPHROSIA SPICATA*  
Brownhair Tephrosia



*SCHRANKIA UNCINATA*  
Catclaw Sensitivebrier

*SOJA MAX*  
Soybean



*SESBANIA EXALTATA*  
Hemp Sesbania



*THERMOPSIS MONTANA*  
Mountain Thermopsis

*SPARTIUM JUNCHEUM*  
Weavers-broom



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## Description of Legumes

**Schrankia uncinata (Willd.) (CATCLAW SENSITIVEBRIER)**—A branched decumbent herbaceous perennial 2 to 4 feet long armed with hooked prickles. It has sensitive bipinnate leaves and pink flowers in dense heads. It is also called shame-vine and sensitive-rose and is found in dry soil from Virginia to South Dakota, Florida, and Texas.

**Sesbania exaltata (Raf.) Cory (HEMP SESBANIA)**—A widely branching herbaceous or somewhat shrubby annual 4 to 12 feet tall, with pinnate leaves and yellowish, purple-spotted flowers. It is also known as danglepod, pea-tree, indigo, Colorado River hemp, sesbania, and long-podded sesban. It occurs in moist soils throughout warmer parts of the Coastal Plain. The woody stems with dangling pods persist throughout the winter.

**Soja max (L.) Piper (SOYBEAN)**—The soybean is an annual bushy plant 2 to 6 feet high, with white or purplish flowers, native of southeastern Asia. It is grown as a summer annual and is also called soya bean, soja bean, Manchurian bean, and, in the South, stock pea. It was introduced into the United States about 1800. More than 100 named varieties are now grown in this country.

**Sophora secundiflora (Ortega) Lag (MESCALBEAN)**—An evergreen shrub of Texas and New Mexico with thick pinnate leaves and large spikes of blue flowers. It occurs in rocky, frequently limestone areas usually out of reach of cattle and sheep, to which it is considered poisonous. However, it is apparently nonpalatable.

**Spartium junceum L. (WEAVERS-BROOM)**—A handsome shrub with slender, rushlike green branches, sparse foliage of small simple leaves, and bright yellow flowers in loose terminal racemes. Native to the Mediterranean region, it grows in almost any well-drained, sandy, or rocky situation.

**Strophostyles helvola (L.) Britt (TANGLE MEALYBEAN)**—An annual herbaceous vine with trifoliate leaves and purplish flowers. It is also called volunteer bean and trailing wild bean and occurs in sandy soils throughout the Eastern States. Although it does not always fruit heavily and will not withstand competition with native species when planted along eroding field borders, when cultivated its growth is so promising that it is being tried as a potential green-manure crop in the Southeast.

**Strophostyles leiosperma (LITTLEFLOWER MEALYBEAN)**—A trailing herbaceous annual, with trifoliate leaves and purplish flowers. It is also called small wild bean and occurs along streams throughout the Central States from South Dakota to Texas.

**Stylosanthes biflora (L.) BSP (TWIN PENCILFLOWER)**—A low wiry-stemmed herbaceous perennial with trifoliate leaves and yellow flowers. It is much like common lespedeza in habit, and occurs in dry, sandy woodlands throughout the Eastern States.

**Tephrosia spicata (Walt) Torr and Gray (BROWNHAIRED TEPHROSIA)**—A straggling much-branched slender herbaceous perennial with pinnate leaves and red-purple flowers. It occurs in dry sandy soils of the Coastal Plain from Virginia to Florida and Louisiana.

**Tephrosia virginiana (VIRGINIA TEPHROSIA)**—An erect or ascending shrublike perennial 1 to 2 feet tall with pinnate leaves and yellowish purple flowers. It is also known as catgut, devil's shoestring, and wild sweetpea.

**Thermopsis**—A genus of some 15 to 20 species of perennial herbs native to North America and northern and eastern Asia. A dozen species have been described from the United States. They are frequently called goldenpeas and occur, for the most part, in the Southern Appalachians and Rockies. They are deep-rooted plants that spread by underground rootstocks. This habit, combined with high drought resistance, makes them of potential erosion-control usefulness. They are of practically no value as forage. Some species contain a poisonous alkaloid, but no livestock losses have been authenticated. *Thermopsis montana* Nutt., of the Rocky Mountains, known as mountain thermopsis or mountain goldenpea, is typical of the genus.

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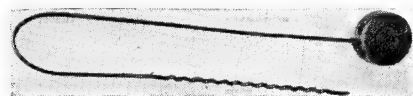


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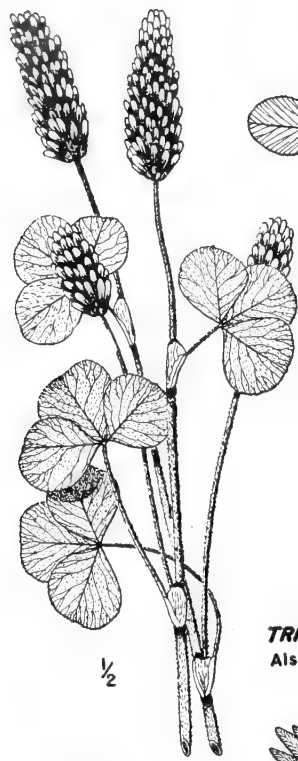
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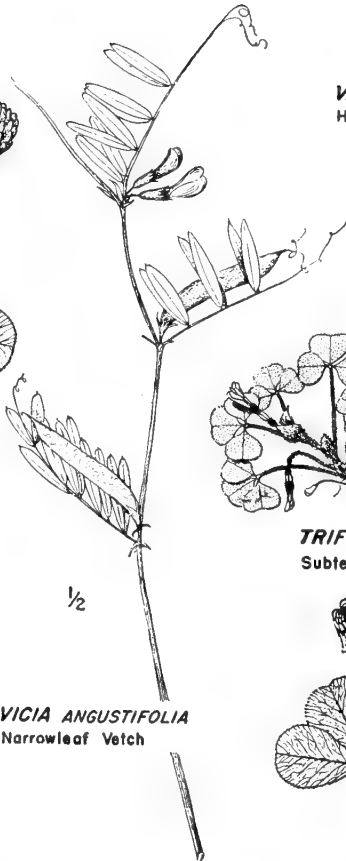
**FARGO, N. D.**



*TRIFOLIUM INCARNATUM*  
Crimson Clover

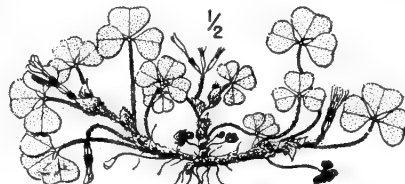
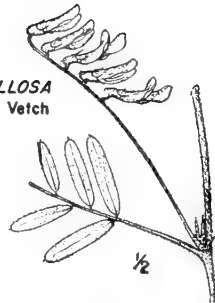


*TRIFOLIUM HYBRIDUM*  
Alsike Clover

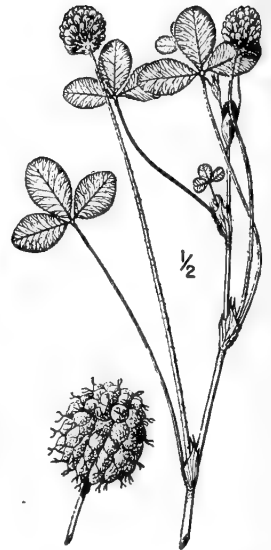


*VICIA ANGUSTIFOLIA*  
Narrowleaf Vetch

*V. VILLOSA*  
Hairy Vetch



*TRIFOLIUM SUBTERRANEUM*  
Subterranean Clover



*TRIFOLIUM FRAGIFERUM*  
Strawberry Clover



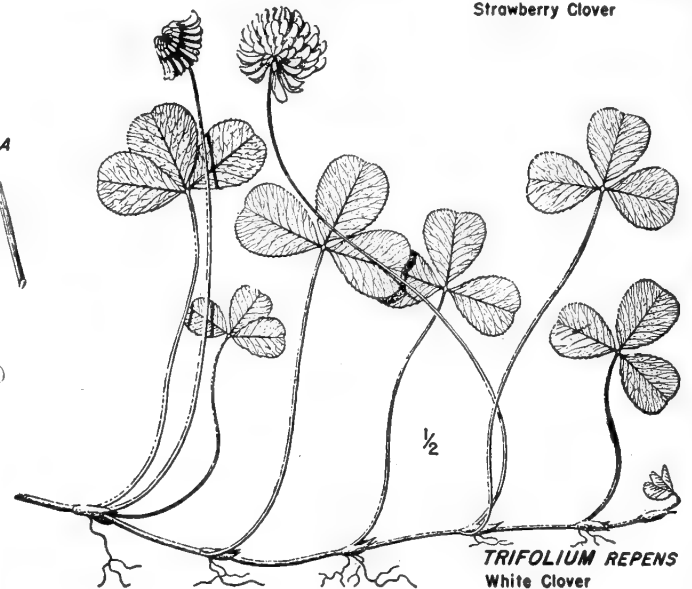
*TRIFOLIUM AGRARIUM*  
Hop Clover



*TRIFOLIUM PRATENSE*  
Red Clover



*V. SATIVA*  
Common Vetch



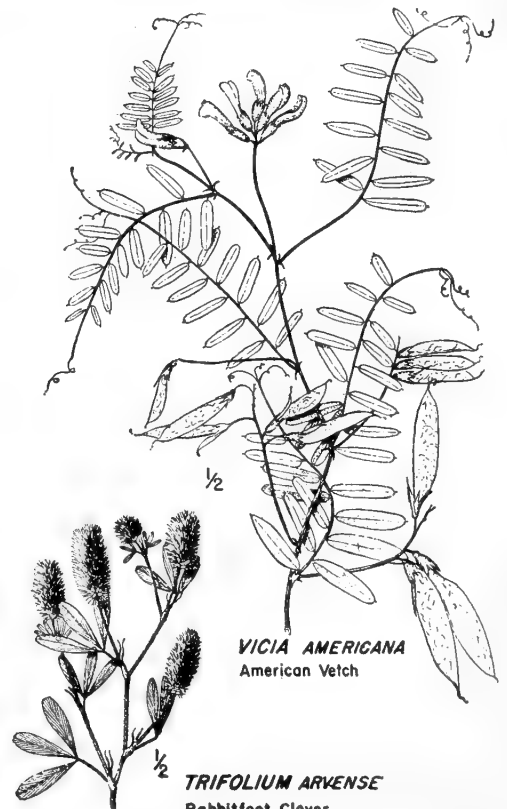
*TRIFOLIUM REPENS*  
White Clover



*ULEX EUROPAEUS*  
European Gorse



*TRIGONELLA FOENUM-GRaecum*  
Fenugreek



*VICIA AMERICANA*  
American Vetch



*TRIFOLIUM ARVENSE*  
Rabbitfoot Clover





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## Description of Legumes

**Trifolium agrarium L (HOP CLOVER)**—A branched ascending European annual 6 to 18 inches high, with oblong heads of yellow flowers. It is now naturalized throughout the eastern United States except in the extreme south.

**Trifolium arvense L (RABBITFOOT CLOVER)**—An annual herb 6 to 18 inches high with cylindrical heads of whitish flowers. A native of Eurasia, it is now naturalized throughout the Eastern States. It is also called pussy clover, stone clover, and calf clover.

**Trifolium fragiferum L (STRAWBERRY CLOVER)**—A European perennial resembling white clover in habit and usefulness. It has become an important plant in lawns and permanent pastures of New Zealand and Australia. In the United States it is used as a pasture plant in the West Coast States, and in the northern Great Plains it is being used locally to reclaim moist meadows rendered alkaline by seepage of irrigation water.

**Trifolium hybridum L (ALSIKE CLOVER)**—A native of Europe, naturalized in the eastern United States. It is a short-lived but very hardy perennial, usually treated in this country as a biennial. The flowers are pinkish or sometimes white, in globose heads. It serves as a good green-manure crop and is an excellent meadow and pasture plant, often being cut for hay when in full bloom. It is a more certain crop for sour or acid soils than red clover and is well adapted to poorly drained sites.

**Trifolium incarnatum L (CRIMSON CLOVER)**—A winter annual 1 to 3 feet tall with cylindrical heads of bright crimson showy flowers. A native of southern Europe, it is grown as a green-manure crop in this country along the Atlantic coast from New Jersey southward and in the eastern Cotton Belt. Planted early in the fall, it affords excellent protection to the soil during the winter and may even be lightly grazed; then if turned under in the spring, it serves as an excellent green-manure plant. Grown with small grains and vetch it makes a good spring hay. It is an early source of honey.

**Trifolium pratense L (RED CLOVER)**—A biennial, which under favorable conditions carries over a third year. It is usually 1 to 2 feet tall and bears large heads of rose-purple to nearly white flowers. It is a native of Europe but much of the American production comes from numerous forms developed in the United States, where it is now the most important forage crop, grown chiefly for hay but used also for green-manure and short rotation pastures. In the Northeast it is used with grasses to form a vegetative cover in diversion ditches. It is cultivated most extensively in the States east of Nebraska and north of Tennessee and to a lesser extent throughout most of the irrigated Western States excepting the arid Southwest. Mammoth clover is a larger variety (var. *perenne* Host.), and Orel clover is a more leafy variety (var. *foliosum* Brand.).

**Trifolium repens L (WHITE CLOVER)**—A long-lived shallow-rooted perennial with white flowers in globose heads and creeping branches frequently rooting at the nodes. It is also called honeysuckle clover and Dutch clover. It is native to Europe and Asia and probably to northern United States and Canada as well, although now widely naturalized. There are three common varieties, namely: Common white Dutch; Ladino, which is a mammoth variety; and wild white, which is of most value in England. Ladino clover, in mixture with grasses, is one of the important erosion-control plants for maintaining permanent cover in central California deciduous fruit orchards. Its creeping habit makes white clover very desirable for lawns and it has long been one of the best pasture plants.

**Trifolium subterraneum L (SUBTERRANEAN CLOVER)**—A European annual with prostrate stems up to 1 foot in length; it has white flowers marked with pink, in clus-

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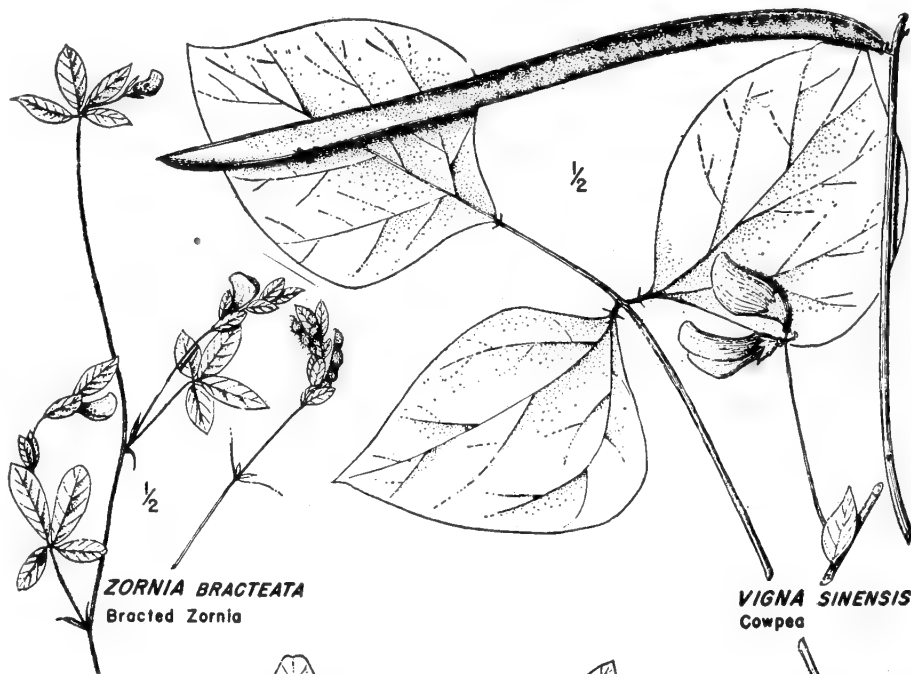
ters of 2 to 7. It is of promise as a winter annual in the Southern States; the plants reseed well but are unable to withstand hot summers even in the Northeast. It is unique among the true clovers in that the ripening heads turn downward and bury themselves under the soil, where the seeds mature. The mat of creeping stems it develops is a good erosion-control device, and the species is now undergoing further trial in this country.

**Trigonella foenum-graecum L (FENU-GREEK)**—A low Eurasian annual grown as a cover crop and winter green-manure crop in southern California near the coast, espe-

cially in walnut groves. The flowers vary from white or yellowish to bluish in color.

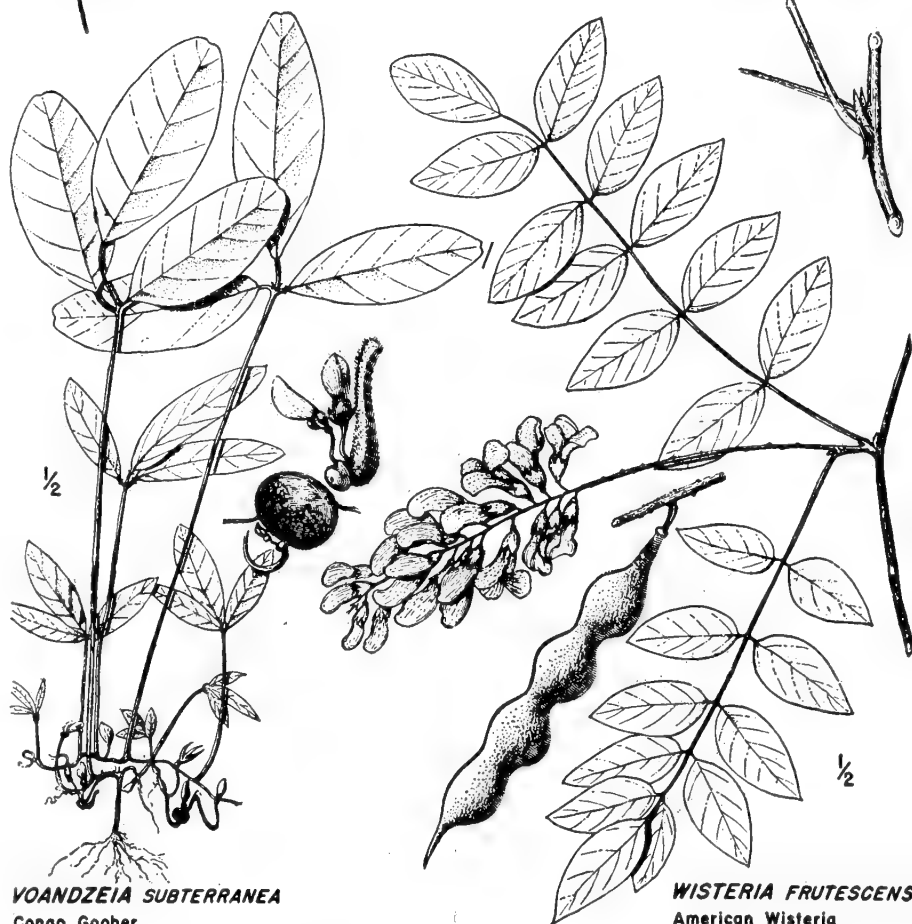
**Ulex europaeus L (EUROPEAN GORSE)**—A spiny European shrub up to 4 feet in height, also known as furze and whin. It has tiny spine-tipped leaves and showy yellow flowers, which, although nectarless, are used by bees as a source of pollen.

**Vicia americana Muhl (AMERICAN VETCH)**—A herbaceous perennial vine native to moist sites throughout the United States except the extreme Southeast and Southwest. Its leaves have 8 to 14 leaflets, and the flowers are bluish-purple. Narrow-leaved (var.



**ZORNIA BRACTEATA**  
Bracted Zornia

**VIGNA SINENSIS**  
Cowpea



**VOANDZEIA SUBTERRANEA**  
Congo Goober

**WISTERIA FRUTESCENS**  
American Wisteria

*linearis* Wats.) and truncate-leaved (var. *truncata* Brew.) varieties, ranging with the species, have been described. Unlike most native vetches, which do not withstand grazing well, this is considered a useful forage plant.

***Vicia angustifolia* Reich. (NARROWLEAF VETCH)**—A slender annual vine introduced from Europe, but naturalized throughout most of the Eastern States. The leaves have 4 to 16 leaflets, and the flowers are purple. The common form of the plant in the South is a strain called Augusta vetch, much used as a winter cover and green-manure crop. It is used as a pasture plant in Georgia, where it maintains itself by heavy reseeding year after year. To a limited extent it has been employed to control erosion on productive field borders in the Southeast.

***Vicia sativa* L. (COMMON VETCH)**—A vining Eurasian annual with stems 3 to 5 feet long, also called English or smooth vetch and tare. There are many crop forms. The leaves have about 14 leaflets; the violet-purple to white flowers are usually in pairs on a very short stalk. It thrives in well-drained loamy soils and is a good soil improver. Thorough inoculation is necessary to produce a good stand on poor soil. Requiring a cool growing season, it is grown as a hay and silage crop in the Northwest and as a winter cover and green-manure crop in California, where it is also a seed crop of commercial importance.

***Vicia villosa* Roth (HAIRY VETCH)**—A slender twining European annual, often behaving as a biennial, with stems up to 12 feet in length. It is very hairy, the leaves have 11 to 17 leaflets, and the blue-violet, rarely white, flowers are borne in long one-sided clusters. It is also known as sand vetch, villose vetch, Russian vetch, and winter vetch. It grows in a variety of soils, even clays, will resist more alkali than most legumes, and is markedly drought-resistant. Its chief uses are for hay, pasture, and

This edition of **SEED TRADE BUYERS GUIDE** does not contain illustrations and descriptions of weeds as in previous editions. It was thought advisable to discontinue this feature for the present, and until new material is available. We are at present working on an entirely new series for presentation in a later edition.

—Ed.

silage. Because of its weak stems it is usually sown with a supporting crop of small grain. Adapted to a wide range of climatic conditions, but especially cold-resistant, it is mostly grown as a winter cover and green-manure crop.

***Vigna sinensis* (COWPEA)**—An annual more like a bean than a pea, with broad leaflets and long slender pods. Probably native to central Africa, it is now extensively cultivated throughout the southeastern

United States and California. It is particularly valuable on poor, sandy soils and is grown for seed, hay, ensilage, and green feed. Its soil conservation value includes use as a cover and pasture plant and green-manure crop. In the warm humid parts of the Southeast only mildew-resistant varieties, such as Iron and Brabham, should be planted for wildlife, for which the seeds are usually available until midwinter.

***Voandzela subterranea* (CONGO GOOBER)**—An African herb, with prostrate stems, from which arise upright trifoliate leaves and small bright yellow flowers borne close to the ground. It has been sparingly grown in southern gardens for some time, and, like the peanut, buries its fruit underground before it ripens. It is widely cultivated by the natives of central Africa for its edible seed and is called Bambarra groundnut, hog-peanut, and goober.

***Wisteria***—A genus containing half a dozen species of stout woody vines native to China, Japan, and eastern North America. They have compound leaves with 9 to 19 leaflets and long drooping clusters of purplish, blue, or white flowers. Japanese wisteria, *W. floribunda* D.C., native to Japan, is commonly cultivated as an ornamental in the United States and is considered one of the most attractive woody vines for temperate regions. Two species with lilac-purple flowers are native to the United States, namely, *W. frutescens* (L.) Poir. (*W. speciosa* Nutt.), the American wisteria of the South Central and Southeastern States, and *W. macrostachya* Torr. and Gray, the Kentucky wisteria of the South Central United States.

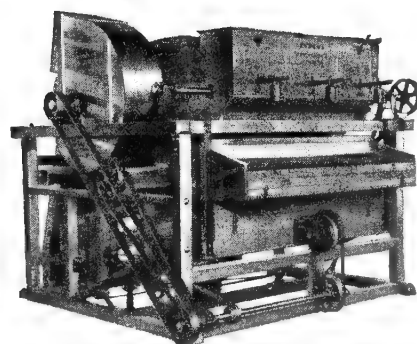
***Zornia bracteata* (BRACKETED ZORNIA)**—A perennial herb, with spreading or prostrate branches up to 3 feet in length, 2- to 4-foliate leaves and yellow flowers in axillary or terminal bracted spikes. It occurs in sandy soil from Virginia to Florida, west to Texas.

'magic--screen'

'Super

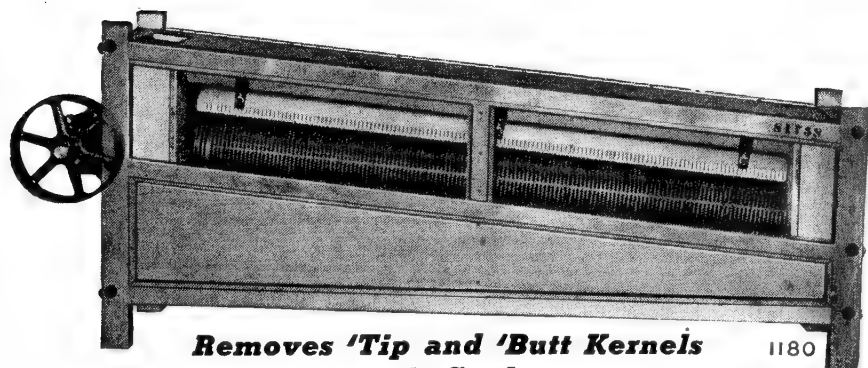
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Woodruff & Sons, Inc., F. H.  
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Kellogg Seed Co. of California  
Salinas, Calif.  
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Rocky Ford, Colo.  
Robinson Seed Co., The J. C.  
Rocky Ford, Colo.  
Robinson & Sons, Lawrence  
Rocky Ford, Colo.  
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Associated Seed Growers, Inc.  
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Orange, Conn.  
Woodruff & Sons, Inc., S. D.  
Orange, Conn.

Comstock, Ferre & Co.  
Wethersfield, Conn.  
Hart Seed Co., The Chas C.  
Wethersfield, Conn.

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Thomson, W. H.  
Lloyd, Fla.  
Gilbert Seed Co., Inc., D. H.  
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Monticello, Fla.  
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Hastings Co., H. G.  
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Woodruff & Sons, Inc., F. H.  
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Concord Corp.  
Cairo, Ga.  
Richter & Sons, P. A. (Collard)  
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Oakes & Co., Edgar L.  
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Woodruff & Sons, Inc., F. H.  
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Twin Falls, Idaho

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## NEW YORK

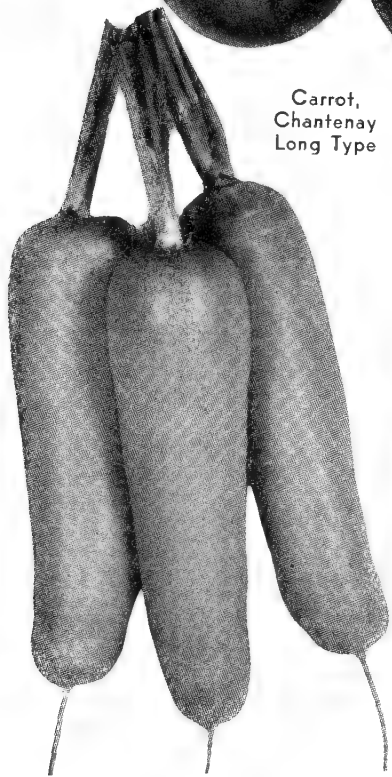
Woodruff & Sons, Inc., F. H.  
Bellerose, L. I., N. Y.



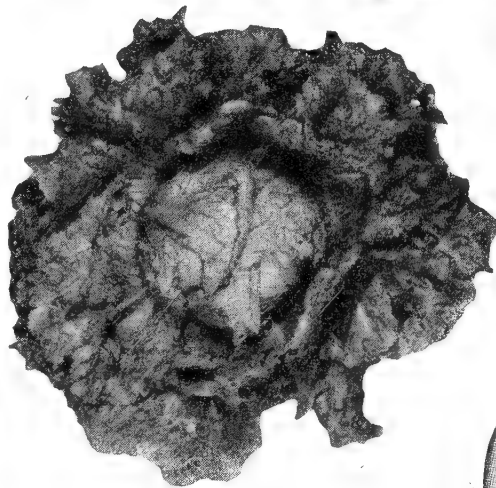
Onion, Yellow  
Sweet Spanish  
Utah



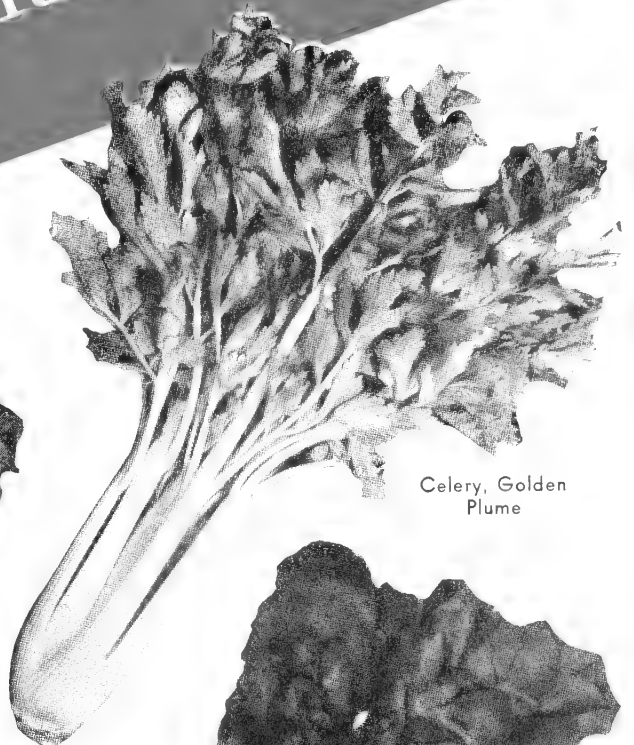
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SWEET PEAS  
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Harris Co., Joseph  
Coldwater, N. Y.  
Page Seed Co., The  
Greene, N. Y.  
Robson Seed Farms  
Hall, N. Y.  
Associated Seed Growers, Inc.  
LeRoy, N. Y.  
Herbst Brothers  
New York, N. Y.  
Mosbell Co., John  
New York, N. Y.  
Vaughan's Seed Store  
New York, N. Y.

#### OHIO

Holmes Seed Co.  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
O. & M. Seed Co., The  
Green Springs, Ohio  
Woodruff & Sons, Inc., F. H.  
Toledo, Ohio  
Clark & Sons, C. S.  
Wakeman, Ohio

#### OREGON

Associated Seed Growers, Inc.  
Gervais, Ore.  
Michael-Leonard Seed Co.  
Ontario, Ore.

#### PENNSYLVANIA

Landreth Seed Co., D.  
Bristol, Pa.  
Buist Co., Robert  
Philadelphia, Pa.  
Burpee Co., W. Atlee  
Philadelphia, Pa.  
Glick's Seed Farms (Tomato)  
Smoketown, Pa.

#### TENNESSEE

Snapp & Sons, J. P.  
Limestone, Tenn.  
Associated Seed Growers, Inc.  
Memphis, Tenn.

#### TEXAS

Nicholson Seed Co., Robert  
Dallas, Texas  
Woodruff & Sons, Inc., F. H.  
Mercedes, Texas  
Willhite Melon Seed Farms  
Poolville, Texas  
Associated Seeds, Inc.  
Robstown, Texas  
Associated Seeds, Inc.  
San Antonio, Texas

#### VERMONT

Hawkins, Budd D.  
Reading, Vt.

#### VIRGINIA

Wood & Sons, T. W.  
Richmond, Va.

#### WASHINGTON

Associated Seed Growers, Inc.  
Mt. Vernon, Wash.  
Boyce Co., J. A.  
Mt. Vernon, Wash.  
Christianson, Alf.  
Mt. Vernon, Wash.  
Leckenby Seed Co.  
Mt. Vernon, Wash.  
Sluis, Peter  
Mt. Vernon, Wash.  
Leckenby Seed Co.  
Seattle, Wash.  
Lilly Co., The Chas. H.  
Seattle, Wash.

Michael-Leonard Seed Co.  
Spokane, Wash.  
Morrison Bros Seed Co. (Peas)  
Spokane, Wash.  
Lilly Co., The Chas. H.  
Yakima, Wash.

#### WISCONSIN

Associated Seed Growers, Inc.  
Green Bay, Wis.  
Olds Seed Co., L. L.  
Madison, Wis.  
Jacques Seed Co.  
Prescott, Wis.  
Wisconsin Cabbage Seed Co. (Yellows  
Resistant Cabbage Seed)  
Racine, Wis.  
Associated Seed Growers, Inc.  
Sheboygan, Wis.

#### WYOMING

Basin-Powell Seed Co.  
Basin, Wyo.  
Woodruff & Sons, Inc., F. H.  
Basin, Wyo.  
Woodruff & Sons, Inc., F. H.  
Douglas, Wyo.  
Michael-Leonard Seed Co.  
Greybull, Wyo.  
Northrup, King & Co.  
Greybull, Wyo.  
Associated Seed Growers, Inc.  
Powell, Wyo.  
Rogers Bros. Seed Co. (Peas, Beans and  
Sweet Corn)  
Powell, Wyo.  
Wyoming Pure Seed Growers, Inc. (Seed  
Beans)  
Worland, Wyo.

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Seed line —*

*"Repeat" business  
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Seed stock is right*

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**VEGETABLE SEEDS** Cabbage - Kale - Spinach  
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Pharr Co., King (Okra)  
Catherine, Ala.  
Wind & Co., I.  
Huntsville, Ala.  
Ibsen Seed Co.  
Mobile, Ala.  
Van Antwerp Seed Co.  
Mobile, Ala.  
Vestergaards Seed Store  
Montgomery, Ala.

## ARKANSAS

Lee, Arthur G.  
Fort Smith, Ark.  
Bass-Isgrig Seed Co.  
Little Rock, Ark.  
Cochran Co., H. K.  
Little Rock, Ark.

## CALIFORNIA

Cuff-Archias Seed Co.  
Brawley, Calif.  
Fish, Henry Berrien Seedsmen (Beans)  
Carpinteria, Calif.  
Bodger Seeds, Ltd.  
El Monte, Los Angeles County, Calif.  
Portland Seed Co.  
Eureka, Calif.  
Pieters-Wheeler Seed Co.  
Gilroy, Calif.  
Rohnert Co., Waldo  
Gilroy, Calif.  
Aggeler & Musser Seed Co.  
Los Angeles, Calif.  
Associated Seed Growers, Inc.  
Los Angeles, Calif.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
Southern California Seed Co.  
Los Angeles, Calif.  
Robinson & Sons, Lawrence  
Modesto, Calif.  
Lagomarsino & Sons, F.  
Sacramento, Calif.  
Woodruff & Sons, Inc., F. H.  
Sacramento, Calif.  
Associated Seed Growers, Inc.  
Salinas, Calif.  
Kellogg Seed Co. of California  
Salinas, Calif.  
Ferry-Morse Seed Co.  
San Francisco, Calif.  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Sherwood Seed Co.  
San Francisco, Calif.  
Kimberlin Seed Co.  
San Jose, Calif.  
Haven Seed Co. (Tomatoes)  
Santa Ana, Calif.  
McCrea Seed Co., Inc.  
Santa Barbara, Calif.  
Paramount Seed Co.  
Stockton, Calif.  
Standard Seed Farms Co.  
Stockton, Calif.

## CANADA

McKenzie Co., Ltd., A. E.  
Brandon, Manitoba, Canada  
Bruce & Co., Ltd., John A.  
Hamilton, Ont., Canada  
Ewing, The Wm. Co., Ltd.  
Montreal, Quebec  
Steele, Briggs Seed Co., Ltd.  
Regina, Sask., Canada  
Keith & Sons, Geo.  
Toronto, Canada

McKenzie Co., Ltd., A. E.  
Toronto, Canada  
Rennie Seeds, Ltd., Wm.  
Toronto, Canada  
Steele, Briggs Seed Co., Ltd.  
Toronto, Canada  
McCabe Bros. Grain Co., Ltd.  
Winnipeg, Man., Canada  
Steele, Briggs Seed Co., Ltd.  
Winnipeg, Man., Canada

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Denver, Colo.  
Colorado Seed Co.  
Denver, Colo.  
Rocky Mountain Seed Co.  
Denver, Colo.  
Western Seed Co.  
Denver, Colo.  
Associated Seed Growers, Inc.  
Greeley, Colo.  
Balcom Seed Co.  
Greeley, Colo.  
Burrell Seeds, Inc.  
Rocky Ford, Colo.  
Garwood Seed Co., H. D.  
Rocky Ford, Colo.  
James, R. H.  
Rocky Ford, Colo.  
Woodruff & Sons, Inc., F. H.  
Rocky Ford, Colo.  
Woodside Seed Growers Co.  
Rocky Ford, Colo.

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Associated Seed Growers, Inc.  
New Haven, Conn.  
Woodruff & Sons, Inc., S. D.  
Orange, Conn.  
Comstock, Ferre & Co.  
Wethersfield, Conn.  
Hart Seed Co., The Chas. C.  
Wethersfield, Conn.

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Gilbert Seed Co., Inc., D. H.  
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Monticello, Fla.  
Simpson Nursery Co.  
Monticello, Fla.  
Kilgore Seed Co., The  
Plant City, Fla.  
Jackson Grain Co.  
Tampa, Fla.  
Security Feed & Seed Co.  
Tampa, Fla.

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Cofer & Co., H. L.  
Athens, Ga.  
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Buist Co., Robert  
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Cottongim Seed Co.  
Atlanta, Ga.  
Everett Seed Co.  
Atlanta, Ga.  
Hastings Co., H. G.  
Atlanta, Ga.  
Woodruff & Sons, Inc., F. H.  
Atlanta, Ga.  
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Cairo, Ga.  
Karsten & Denson Co.  
Macon, Ga.

Curry-Arrington Seed Co.  
Rome, Ga.  
Shuptrine Co.  
Savannah, Ga.  
Thomas Drug Co.  
Thomasville, Ga.  
Parramore & Griffin Seed Co.  
Valdosta, Ga.

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Northrup, King & Co.  
Boise, Idaho  
Crookham Co.  
Caldwell, Idaho  
Oakes & Co., Edgar L.  
Caldwell, Idaho  
Associated Seed Growers, Inc.  
Filer, Idaho  
Duthie Co.  
Lewiston, Idaho  
Mark Means Co.  
Lewiston, Idaho  
Moscow-Idaho Seed Co. (Peas and Beans)  
Moscow, Idaho  
Washburn Wilson Seed Co.  
Moscow, Idaho  
Associated Seed Growers, Inc.  
Rigby, Idaho  
Associated Seed Growers, Inc.  
St. Anthony, Idaho

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Michael-Leonard Seed Co.  
Chicago, Ill.  
Rogers Bros. Seed Co. (Peas, Beans,  
Sweet Corn)  
Chicago, Ill.  
Vaughan's Seed Store  
Chicago, Ill.  
East St. Louis Seed Co.  
East St. Louis, Ill.  
Shultz Seed Co.  
Olney, Ill.  
Kelly Seed Co.  
Peoria, Ill.  
Geo. Keller & Sons  
Quincy, Ill.  
Condon Bros., Seedsmen  
Rockford, Ill.

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Warren Seed Co.  
Indianapolis, Ind.  
Davis Seed Corp.  
Lebanon, Ind.  
Quinlan Seed Store  
Terre Haute, Ind.  
McMahan Seed Co.  
Valparaiso, Ind.

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Berry Seed Co.  
Clarinda, Iowa  
Standard Seed Co.  
Des Moines, Iowa  
Dakota Improved Seed Co.  
Emmetsburg, Iowa  
Schutter, Fred H.  
Pleasant Valley, Iowa  
Michael-Leonard Seed Co.  
Sioux City, Iowa  
KANSAS  
Mangelsdorf Seed Co., The F. A.  
Atchison, Kans.  
Bowman Seed Co., The  
Concordia, Kans.



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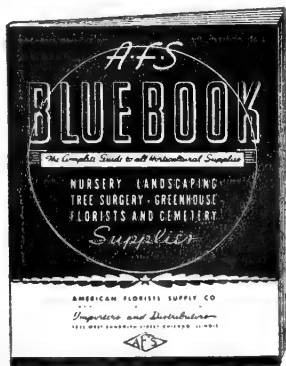
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Richardson & Co., E. Miller  
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Emerson Co., Thos. W.  
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Ross Bros. Co.  
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Galesburg, Mich.  
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Beans)  
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Corneli Seed Co.  
St. Louis, Mo.  
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St. Louis, Mo.  
Beazley Seed Co.  
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Springfield Seed Co.  
Springfield, Mo.

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Michael-Leonard Seed Co.  
Billings, Mont.  
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Northland Seed Co.  
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Griswold Seed & Nursery Co.  
Lincoln, Nebr.  
Nebraska Seed Co., The  
Omaha, Nebr.  
Bowman Seed Co., The  
Superior, Nebr.  
Robinson Seed Co., The J. C.  
Waterloo, Nebr.

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Buffalo, N. Y.  
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Cambridge, N. Y.  
Crosman Seed Corporation  
East Rochester, N. Y.  
Banfield Jennings Corp.  
Elmira, N. Y.  
Fredonia Seed Co.  
Fredonia, N. Y.  
Page Seed Co., The  
Greene, N. Y.  
Associated Seed Growers, Inc.  
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Wilmington, N. C.  
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Magill & Co. (Operating Fargo Seed  
House)  
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Will & Co., Oscar H.  
Bismarck, N. Dak.

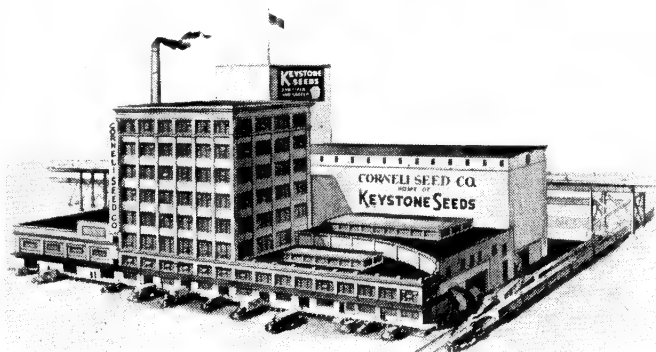
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Botzum Bros. Seed Co.  
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Holmes Seed Co., The  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Moore, Charles R. (Broker)  
Cincinnati, Ohio  
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Portland Seed Co.  
Portland, Ore.  
Jenks-White Seed Co.  
Salem, Ore.

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Harrisburg, Pa.  
Buist Co., Robert  
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Burpee Co., W. Atlee  
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Kirby, Norval E.  
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Limestone, Tenn.  
Associated Seed Growers, Inc.  
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Buchanan Seed Company, R. B.  
Memphis, Tenn.  
Russell Heckle Seed Co.  
Memphis, Tenn.  
Schwill & Co., Otto  
Memphis, Tenn.  
Dobson-Hicks Co.  
Nashville, Tenn.  
Hardison Seed Co., E. K.  
Nashville, Tenn.

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Hardie Seed Co., David  
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Magnolia Seed Co.  
Dallas, Texas  
Nicholson Seed Co., Robert  
Dallas, Texas  
American Seed Co.  
Fort Worth, Texas  
Martin Seed Co.  
Houston, Texas  
Woodruff & Sons, Inc., F. H.  
Mercedes, Texas  
Associated Seeds, Inc.  
Robstown, Texas  
Associated Seeds, Inc.  
San Antonio, Texas  
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San Antonio, Texas  
Reuter Seed Co.  
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Martin-Lane Co.  
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Richmond, Va.

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Boyce Co., J. A.  
Mt. Vernon, Wash.  
Christianson, Alf.  
Mt. Vernon, Wash.  
Leckenby Seed Co.  
Mt. Vernon, Wash.  
Sluis, Peter  
Mt. Vernon, Wash.  
Leckenby Seed Co.  
Seattle, Wash.  
Lilly Co., The Chas. H.  
Seattle, Wash.  
Portland Seed Co.  
Seattle, Wash.  
Michael-Leonard Seed Co.  
Spokane, Wash.  
Spokane Seed Co.  
Spokane, Wash.  
Beard-Adams Seed Co.  
Yakima, Wash.

**WISCONSIN**

Associated Seed Growers, Inc.  
Green Bay, Wis.  
Olds Seed Co., L. L.  
Madison, Wis.  
Manitowoc Seed Co.  
Manitowoc, Wis.  
Hunkel Co., G. H.  
Milwaukee, Wis.  
Jacques Seed Co.  
Prescott, Wis.  
Wisconsin Cabbage Seed Co. (Yellows  
Resistant Cabbage Seed)  
Racine, Wis.  
Associated Seed Growers, Inc.  
Sheboygan, Wis.

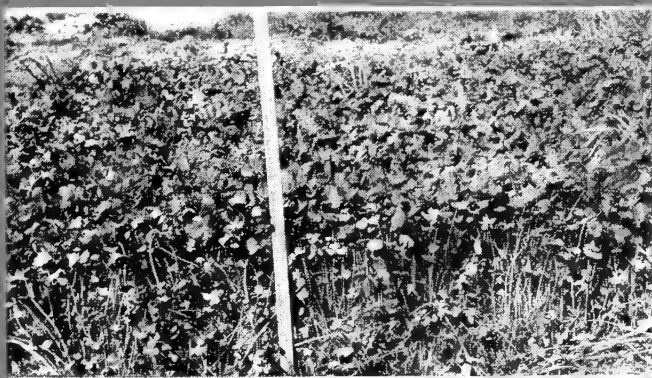
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Michael-Leonard Seed Co.  
Greybull, Wyo.  
Associated Seed Growers, Inc.  
Powell, Wyo.



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- Endive • Fennel • Lettuce
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# Seed Germination Table

Prepared by Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C.

Name of seed	Substrata	Temperature	First count	Final count	Remarks	Name of seed	Substrata	Temperature	First count	Final count	Remarks
Alfalfa— <i>Medicago sativa</i> .....	B, S	° C. 20	Days 3	Days 7		Redtop— <i>Agrostis alba</i> .....	TB, P	° C. 20-30	Days 5	Days 10	Light.
Bahia grass— <i>Paspalum notatum</i> ...	P	20-35	7	90	Light; potassium nitrate; prechill fresh seed for 4 weeks at 5° C. <sup>1</sup>	Reed Canary grass— <i>Phalaris arundinacea</i> .....	P	20-30	5	21	Light; fresh seed potassium nitrate.
Barley— <i>Hordeum vulgare</i> .....	T, S	20	3	7	Fresh seed prechill 5 days at 5° or 10° C.	Rescue grass— <i>Bromus catharticus</i> ..	P	20-30	7	35	Light; fresh seed potassium nitrate and 15-25° C.
Bean, field— <i>Phaseolus vulgaris</i> ...	R, S	20-30	5	8		Rhodes grass— <i>Chloris gayana</i> .....	P	20-30	6	14	Light.
Bean, velvet— <i>Stizolobium utile</i> ....	S	20-30	3	14		Rice— <i>Oryza sativa</i> .....	B, T	20-30	3	10	
Bean, Mung— <i>Phaseolus aureus</i> ....	R, S	20-30	3	7		Rye— <i>Secale Cereale</i> .....	T, S	20	3	7	
Beet, field (not sugar)— <i>Beta vulgaris</i>	B	20-30	3	14	Soak in water 2 hours before testing. Wash in running water after soaking.	Ryegrass: Italian— <i>Lolium multiflorum</i> ..	P, TB	20-30	5	14	Light; fresh seed potassium nitrate.
Bentgrass:						Perennial— <i>Lolium perenne</i> .....	P, TB	20-30	5	14	Light.
Creeping (seaside):						Sainfoin— <i>Onobrychis viciaefolia</i> ...	B	20-30	4	10	
<i>Agrostis palustris</i> .....	P	20-30	7	28	Light; potassium nitrate.	Sorghum:					
Highland:						Grain— <i>Sorghum vulgare</i> .....	B, S	20-30	3	10	
<i>Agrostis tenuis</i> var.....	P	20-30	7	21	Do.	Sweet (sorgo)— <i>Sorghum vulgare</i> .....	B, S	20-30	3	10	Fresh seed prechill at 5° or 10° C. for 5 days.
<i>Agrostis</i> spp.....	P	20-30	7	21	Do.	Soybean— <i>Glycine max</i> .....	RT, S	20-30	5	8	
Bermuda grass— <i>Cynodon dactylon</i> ..	P	20-35	7	21		Sudan grass— <i>Sorghum vulgare sudanense</i> .....	B, S	20-30	3	10	
Bluegrass:						Sweet vernalgrass— <i>Anthoxanthum odoratum</i> .....	P	20-30	6	14	Light.
Annual— <i>Poa annua</i> .....	P	20-30	7	28	Light.	Timothy— <i>Phleum pratense</i> .....	P, TB	20-30	5	10	Light; fresh seed potassium nitrate.
Canada— <i>Poa compressa</i> .....	P	20-30	7	28	Light; potassium nitrate.	Velvetgrass— <i>Holcus lanatus</i> .....	P	20-30	6	14	Light.
Kentucky— <i>Poa pratensis</i> .....	P	20-30	7	21	Do.	Vetch:					
Rough— <i>Poa trivialis</i> .....	P	20-30	7	21	Do.	Common— <i>Vicia sativa</i> .....	T	20	3	10	
Wood— <i>Poa nemoralis</i> .....	P	20-30	7	28	Do.	Hairy— <i>Vicia villosa</i> .....	T	20	3	14	
Bluestem— <i>Agropyron smithii</i> .....	P	20-30	7	35	Light; fresh seed potassium nitrate and 15° C.	Hungarian— <i>Vicia pannonica</i> .....	T	20	3	10	
Brome, smooth— <i>Bromus inermis</i> ....	P, TB	20-30	6	14	Light.	Monantha— <i>Vicia monantha</i> .....	T	20	3	10	
Broomcorn— <i>Sorghum vulgare technicum</i> .....	B, S	20-30	3	10		Narrowleaf— <i>Vicia angustifolia</i> .....	T	20	3	10	
Buckwheat— <i>Fagopyrum vulgare</i> ....	B, T	20-30	3	6		Purple— <i>Vicia atropurpurea</i> .....	T	20	3	10	
Carpet grass— <i>Axonopus compressus</i> .....	P	20-35	10	21	Light.	Woollypod— <i>Vicia dasycarpa</i> .....	T	20	4	14	
Chickpea— <i>Cicer arietinum</i> .....	R, S	20-30	3	7		Wheat:					
Clovers:						Common—spelt and emmer	T, S	20	3	7	Fresh seed prechill at 5° or 10° C. for 5 days.
Alsike— <i>Trifolium hybridum</i> .....	B, S	20	3	7		<i>Triticum aestivum</i> .....	T, S	20	3	10	Fresh seed prechill at 5° or 10° C. for 5 days.
Berseem— <i>Trifolium alexandrinum</i> .....	B, S	20	3	7		Durum— <i>Triticum aestivum</i> ....	T, S	20	3	10	
Bur— <i>Medicago arabica</i> and <i>Medicago hispida</i> .....	B, T	20	4	14		Wheatgrass:					
Crimson— <i>Trifolium incarnatum</i> .....	B, S	20	3	7		Crested— <i>Agropyron cristatum</i> .....	P, TB	20-30	5	14	Light; fresh seed 15° C.
Persian— <i>Trifolium resupinatum</i> .....	B	20	3	7		Slender— <i>Agropyron pauciflorum</i> .....	P, TB	20-30	5	14	Light.
Red— <i>Trifolium pratense</i> .....	B, S	20	3	7		VEGETABLES AND HERBS					
Sour— <i>Melilotus indica</i> .....	B	20	3	14		Artichoke— <i>Cynara scolymus</i> .....	T	20-30	7	21	
Strawberry— <i>Trifolium fragiferum</i> .....	B	20	3	7		Asparagus— <i>Asparagus officinalis</i> ..	T	20-30	7	21	
Subterranean— <i>Trifolium subterraneum</i> .....	B	20	4	14	Fresh seed 15° C.	Beans:					
Suckling— <i>Trifolium dubium</i> .....	B	20	4	14		Garden— <i>Phaseolus vulgaris</i> ...	R, S	20-30	5	8	Watch for "baldhead" and other injuries.
Sweet— <i>Melilotus alba</i> and <i>Melilotus officinalis</i> .....	S, B	20	3	7		Horse or broad— <i>Vicia faba</i> ...	S	20	4	10	
White— <i>Trifolium repens</i> .....	B, S	20	3	10		Lima— <i>Phaseolus lunatus</i> .....	R, S	20-30	5	9	Watch for "baldhead" and other injuries.
Cotton— <i>Gossypium hirsutum</i> .....	T, S	20-30	4	12	"Prewet" seed on re-test. <sup>2</sup>	Beet, Swiss chard and mangel— <i>Beta vulgaris</i> .....	B	20-30	3	14	Soak in water 2 hours before testing. Wash in running water after soaking.
Cowpeas— <i>Vigna sinensis</i> .....	R, S	20-30	5	8	Watch for weevil injury to plumule.	Brassica oleracea varieties: Cabbage, collards, kale, brussels sprouts, cauliflower, broccoli, and kohlrabi.	B	20-30	3	10	
Corn, field— <i>Zea mays</i> .....	R, S	20-30	4	7		Carrot— <i>Daucus carota</i> .....	P, TB	20-30	6	28	
Corn, pop— <i>Zea mays everta</i> .....	R, S	20-30	4	7		Celery— <i>Apium graveolens</i> , var. <i>rapaceum</i> .....	B, TB	20-30	10	21	Light.
Crested dogtail— <i>Cynosurus cristatus</i> .....	P	20-30	10	21	Light; fresh seed prechill for 3 days at 5° or 10° C.	Celery— <i>Celeri graveolens</i> var. <i>dulce</i> .....	P, TS	20-30	5	14	Light; potassium nitrate or soil.
Crotalaria— <i>Crotalaria inermis</i> and <i>C. spectabilis</i> .....	B, S	20-30	3	10		Chicory— <i>Cichorium intybus</i> .....	T	20-30	7	14	
Dallis grass— <i>Paspalum dilatatum</i> .....	P	20-35	7	21	Light; fresh seed potassium nitrate.	Citron— <i>Citrus vulgaris</i> .....	R, S	20-30	4	7	
Fescue:						Corn, sweet— <i>Zea mays</i> .....	B	20	7	28	Fresh seed 10° or 15° C.
Hair— <i>Festuca capillata</i> .....	P	10-25	10	28	Potassium nitrate	Corn salad— <i>Fetticus—Valerianella locusta</i> var. <i>olitoria</i> .....	B	20	7	28	
Meadow— <i>Festuca elatior</i> .....	P	20-30	5	14		Cress:					
Other fescues.....	P	15-25	7	21		Garden— <i>Lepidium sativum</i> .....	B	20	4	10	
Flax— <i>Linum usitatissimum</i> .....	TB	20-30	10	28		Water— <i>Roripa nasturtium-aquaticum</i> .....	P	20	4	10	
Guinea grass— <i>Panicum maximum</i> .....	P	20-30	10	28		Cucumber— <i>Cucumis sativus</i> .....	T, S, B	20-30	3	7	
Kudzu— <i>Pueraria thunbergiana</i> .....	T	20-30	5	14		Dandelion— <i>Leontodon taraxacum</i> .....	TB	20	7	21	
Lespedeza:						Eggplant— <i>Solanum melongena</i> var. <i>esculentum</i> .....	TB	20-30	7	14	
Chinese— <i>Lespedeza sericea</i> .....	B, S	20-35	7	28		Endive— <i>Cichorium endivia</i> .....	P, TS	20-30	5	14	Light; potassium nitrate or soil.
Common— <i>Lespedeza striata</i> .....	B	20-35	7	14		Leek— <i>Allium porrum</i> .....	B	20	6	14	
Korean— <i>Lespedeza stipulacea</i> .....	B	20-35	5	14		Lettuce— <i>Lactuca sativa</i> .....	P	20	3	5	Light for 1/4 hour; fresh seed prechill at 10° or 15° C. for 3 days.
Lupine— <i>Lupinus luteus</i> .....	B, T	20	7	21		Muskmelon— <i>Cucumis melo</i> .....	B, T, S	20-30	4	10	
Meadow foxtail— <i>Alopecurus pratensis</i> .....	P	20-30	7	14	Light.	Mustard—India, <i>Brassica juncea</i> ..	P	20-30	3	7	Light; fresh seed potassium nitrate and prechill at 10° C. for 3 days.
Medick, black— <i>Medicago lupulina</i> .....	B, S	20	3	7		Okra— <i>Hibiscus esculentum</i> .....	R	20-30	4	21	
Millet:						Onion— <i>Allium cepa</i> .....	B, S	20	5	14	
Browntop— <i>Panicum fasciculatum</i> .....	B	20-30	4	14		Parsley— <i>Petroselinum hortense</i> .....	B	20-30	11	28	
Foxtail, German, Hungarian, or Golden— <i>Setaria italica</i> .....	B	20-30	4	10		Parsnip— <i>Pastinaca sativa</i> .....	B	20-30	6	28	
Japanese— <i>Echinochloa crus-galli frumentacea</i> .....	B	20-30	3	7		Peas, garden— <i>Pisum sativum</i> .....	R, S	20	5	8	
Pearl— <i>Pennisetum glaucum</i> .....	B	20-30	3	7		Pepper— <i>Capiscum</i> spp.....	TB	20-30	6	14	
Proso— <i>Panicum miliaceum</i> .....	P	20-30	7	21	Light.	Pumpkin— <i>Cucurbita pepo</i> .....	T, S	20-30	4	7	
Molasses grass— <i>Melinis minutiflora</i> .....	P	20-30	7	21		Radish— <i>Raphanus sativus</i> .....	B	20	3	6	
Napier grass— <i>Pennisetum purpureum</i> .....	B	20-30	3	10		Rhubarb— <i>Rheum raphaniticum</i> .....	TS	20-30	7	21	Light.
Oats— <i>Avena sativa</i> .....	T, S	20	4	10	Fresh seed prechill for 5 days at 5° or 10° C	Rutabaga— <i>Brassica napobrassica</i> .....	B	20-30	3	7	
Oatgrass, tall— <i>Arrhenatherum elatius</i> .....	P	20-30	6	14	Light.	Salsify— <i>Tragopogon porrifolius</i> ...	T	20	5	10	Fresh seed prechill at 10° C. for 3 days.
Orchard grass— <i>Dactylis glomerata</i> .....	S, P	20-30	7	18	Germination more rapid in soil; light on Petri dish tests.	Sorrel— <i>Rumex acetosa</i> .....	TS	20-30	3	14	Light.
Peas, field— <i>Pisum sativum arvense</i> .....	R, S	20	3	8		Spinach:					
Rape— <i>Brassica napus</i> .....	B	20-30	3	7		Common— <i>Spinacea oleracea</i> .....	TB	10	7	21	

<sup>1</sup> Substrata: B=between blotters; TB=top of blotters; T=paper toweling; R=rolled towel test; S=soil or sand; TS=top of soil; P=petri dishes with 2 thicknesses of blotters or 1 thickness of absorbent cotton or 5 thicknesses of paper toweling.

<sup>2</sup> Treatment with approximately (75 percent) sulfuric acid from 45 to 90 minutes will cause seed to grow at 20-35 light without prechilling or potassium nitrate. Time limits for treatment vary with thickness of glumes on individual sample.

<sup>3</sup> "Prewet" method on cotton; shake seed in a closed container, thoroughly wetting the "fuzz" of the seed. Blot off all excess moisture and put in to germinate. If the prewet test is higher report both it and the standard germination.

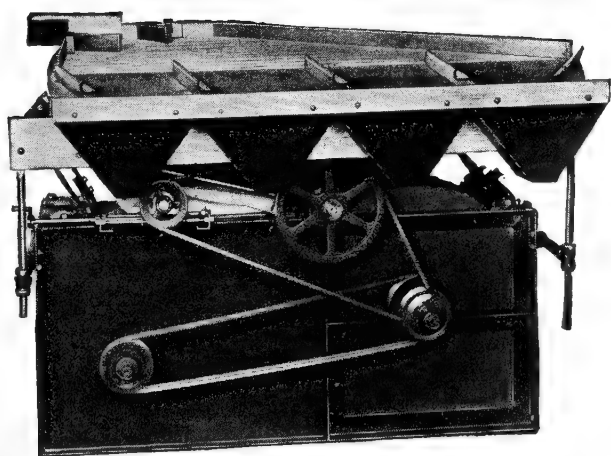


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# TOLERANCE TABLES TO BE USED IN CONNECTION WITH THE ENFORCEMENT OF THE FEDERAL SEED ACT

(Seedsmen should remember that the tolerances are not for the purpose of permitting labeling to show higher quality than is actually found by test. The tolerances are provided to take care of the unavoidable variation in the results of tests and difficulty in bringing seed to uniform quality. It would be the part of wisdom to label the seed as indicated by test and certainly not to show higher quality than is indicated by test. There are numerous indications that seedsmen are applying the tolerance to the results of tests when labeling seed for shipment in interstate commerce. This is certain to lead to difficulty. The seedsman will need the protection of the tolerance if he labels the seed on the basis of the results of a test. If the tolerance is applied prior to labeling the seed, the seedsman in effect deprives himself of the protection of the tolerance.)

**TABLE OF TOLERANCE FOR PURE SEED VARIATIONS FOR OTHER THAN CERTAIN CHAFFY GRASSES**

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
100	.60										100
99	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	99
98	.99	.97	.95	.93	.91	.89	.87	.85	.83	.81	98
97	1.18	1.16	1.14	1.12	1.10	1.08	1.06	1.05	1.04	1.01	97
96	1.36	1.34	1.33	1.31	1.29	1.27	1.25	1.23	1.21	1.20	96
95	1.55	1.52	1.50	1.48	1.46	1.45	1.44	1.42	1.40	1.38	95
94	1.72	1.71	1.69	1.67	1.65	1.63	1.62	1.60	1.58	1.56	94
93	1.90	1.88	1.86	1.85	1.83	1.81	1.79	1.78	1.76	1.74	93
92	2.07	2.05	2.03	2.02	2.00	1.98	1.96	1.95	1.93	1.91	92
91	2.23	2.22	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.08	91
90	2.40	2.38	2.36	2.35	2.33	2.31	2.30	2.28	2.27	2.25	90
89	2.55	2.54	2.52	2.51	2.49	2.47	2.46	2.44	2.43	2.41	89
88	2.71	2.67	2.68	2.66	2.65	2.63	2.62	2.60	2.58	2.57	88
87	2.86	2.84	2.83	2.81	2.80	2.78	2.77	2.75	2.74	2.72	87
86	3.00	2.99	2.97	2.96	2.95	2.92	2.92	2.90	2.89	2.87	86
85	3.15	3.13	3.12	3.10	3.09	3.07	3.06	3.05	3.03	3.02	85
84	3.28	3.27	3.26	3.24	3.23	3.21	3.20	3.19	3.17	3.16	84
83	3.42	3.40	3.39	3.38	3.36	3.35	3.34	3.32	3.31	3.30	83
82	3.55	3.53	3.52	3.51	3.50	3.48	3.47	3.46	3.44	3.43	82
81	3.67	3.66	3.65	3.64	3.62	3.61	3.60	3.59	3.57	3.56	81
80	3.80	3.78	3.77	3.76	3.75	3.73	3.72	3.71	3.70	3.68	80
79	3.91	3.90	3.89	3.88	3.87	3.85	3.84	3.83	3.82	3.81	79
78	4.03	4.02	4.00	3.99	3.98	3.97	3.96	3.95	3.94	3.92	78
77	4.14	4.13	4.12	4.10	4.09	4.08	4.07	4.06	4.05	4.04	77
76	4.24	4.23	4.22	4.21	4.20	4.19	4.18	4.17	4.16	4.15	76
75	4.35	4.33	4.32	4.31	4.30	4.29	4.28	4.27	4.26	4.25	75
74	4.44	4.43	4.42	4.41	4.40	4.39	4.38	4.37	4.36	4.35	74
73	4.54	4.53	4.52	4.51	4.50	4.49	4.48	4.47	4.46	4.45	73
72	4.63	4.62	4.61	4.60	4.59	4.58	4.57	4.56	4.56	4.55	72
71	4.71	4.70	4.70	4.69	4.68	4.67	4.66	4.65	4.64	4.64	71
70	4.80	4.79	4.78	4.77	4.76	4.75	4.75	4.74	4.73	4.72	70
69	4.87	4.87	4.86	4.85	4.84	4.83	4.83	4.82	4.81	4.80	69
68	4.95	4.94	4.93	4.93	4.92	4.91	4.90	4.90	4.89	4.88	68
67	5.02	5.01	5.00	5.00	4.99	4.98	4.98	4.97	4.96	4.95	67
66	5.08	5.08	5.07	5.06	5.06	5.05	5.04	5.04	5.03	5.02	66
65	5.15	5.14	5.13	5.13	5.12	5.11	5.11	5.10	5.10	5.09	65
64	5.20	5.20	5.19	5.19	5.18	5.17	5.17	5.16	5.16	5.15	64
63	5.26	5.25	5.25	5.24	5.24	5.23	5.23	5.22	5.21	5.21	63
62	5.31	5.30	5.30	5.29	5.29	5.28	5.28	5.27	5.27	5.26	62
61	5.35	5.35	5.34	5.34	5.34	5.33	5.33	5.32	5.32	5.31	61
60	5.40	5.39	5.39	5.38	5.38	5.37	5.37	5.37	5.36	5.36	60
59	5.43	5.43	5.43	5.42	5.42	5.41	5.41	5.41	5.40	5.40	59
58	5.47	5.46	5.46	5.46	5.45	5.45	5.45	5.44	5.44	5.44	58
57	5.50	5.49	5.49	5.49	5.49	5.48	5.48	5.48	5.47	5.47	57
56	5.52	5.52	5.52	5.52	5.51	5.51	5.51	5.51	5.50	5.50	56
55	5.55	5.54	5.54	5.54	5.54	5.53	5.53	5.53	5.53	5.53	55
54	5.56	5.56	5.56	5.56	5.56	5.55	5.55	5.55	5.55	5.55	54
53	5.58	5.58	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.56	53
52	5.59	5.59	5.59	5.58	5.58	5.58	5.58	5.58	5.58	5.58	52
51	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	51
50	5.60	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	50

The tolerance for pure seed on purity less than 50% is the same as the tolerance for the larger part of the difference between the purity and 100%.

Example: If the purity test is 96.40% use the table in this manner: Find 96 in the "Value" column, then the .40 at top of table. These two intersect at 1.29. Therefore the tolerance allowed would be 1.29%.



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CONSISTS OF:	Dealer Cost	Retail For
24 Bottles, 1-oz. (35c)	\$5.40	\$8.40
2 Bottles, 4-oz. (\$1)	Free	2.00
<b>TOTAL</b>	<b>\$5.40</b>	<b>\$10.40</b>

**DEALER PROFIT, \$5.00**

**92% Actual Mark-up**

#### ASSORTMENT No. 780

CONSISTS OF:	Dealer Cost	Retail For
48 Bottles, 4-oz. (\$1)	\$32.00	\$48.00
12 Bottles, 4-oz. (\$1)	Free	12.00
<b>TOTAL</b>	<b>\$32.00</b>	<b>\$60.00</b>

**DEALER PROFIT, \$28.00**

**87½% Actual Mark-up**

SIZE	How Packed, per Case	Shipping Weight, per Case	List Prices to Dealers	Suggested Retail Prices
1-Oz. Bottle.....	1 Doz.	3 lbs.	\$2.70 Doz.	\$ .35 Each
4-Oz. Bottle.....	1 Doz.	8 lbs.	8.00 Doz.	1.00 Each
1-Pt. Bottle.....	1 Doz.	25 lbs.	22.70 Doz.	2.85 Each
1-Qt. Bottle.....	1 Doz.	46 lbs.	3.35 Each	5.00 Each
1-Gal. Bottle.....	1 Only	13 lbs.	10.70 Gal.	16.00 Gal.
6 1-Gal. Bottles	½ Doz.	81 lbs.	10.35 Gal.	15.50 Gal.
5-Gal. Can .....	1 Only	70 lbs.	9.50 Gal.	14.00 Gal.

SEE NEXT PAGE FOR MORE INFORMATION

**THE McCORMICK SALES COMPANY • BALTIMORE, MD.**



PYRETHRUM-ROTENONE  
**RED ARROW**  
 GARDEN SPRAY  
 HIGHLY CONCENTRATED

## Advertised In 12 Big National Magazines

Again in 1942 Red Arrow will continue to support the trade with tremendous national magazine advertising coverage—with advertising in more magazines, reaching more millions of home gardeners, than any other garden insecticide. Right through the garden insect season, Red Arrow advertising will appear in Saturday Evening Post, Life, Collier's, American Home, Better Homes & Gardens, Ladies' Home Journal,

Woman's Home Companion, McCall's, Farm Journal & Farmer's Wife, Holland's, Sunset, and Country Gentleman—reaching a total circulation of more than 28,000,000 homes. This Red Arrow advertising—constantly helping sell Red Arrow in every community and every neighborhood—makes it good business for you to keep Red Arrow well displayed throughout the garden season.

## PUSH THESE OTHER POPULAR PROFIT MAKERS IN THE McCORMICK-RED ARROW LINE



### "SPECIAL" RED ARROW SPRAY

An extra high-powered pyrethrum spray for control of leaf tyers, leaf rollers, Jap beetles and sod web worms.



### BLACK ARROW 5000 PYRETHRUM DUST

A compound pyrethrum dust for use in greenhouses on flowers, vegetables, small fruits, etc.



### RED ARROW GARDEN DUST

Controls many varieties of sucking and chewing insects. Contains  $\frac{3}{4}\%$  Rotenone and 30% wettable sulphur.



### McCORMICK'S ROTENONE DUST

$\frac{3}{4}\%$  Rotenone plus other extractives of Rotenone-bearing powder. A substitute for arsenicals on many fruits and vegetables.

### ROTENONE GREENHOUSE SPRAY

Controls Spider Mites and many other types of insects, under glass and outdoors. Contains  $1\frac{1}{2}\%$  Rotenone, other Derris Extractives and special wetting agent.

### BEE BRAND DERRIS POWDER WARBLE FLY TREATMENT

Attractive 1-lb. package, with instructions approved by agricultural authorities for control of cattle grubs, heel flies and warble flies.

### BEE BRAND DERRIS POWDER FOR GARDEN ANTS

Attractive new lithographed metal packages to retail for only 25 cents.

### BEE BRAND INSECTICIDAL SHAMPOO

Kills fleas and lice on dogs and cats—leaves the coat clean, soft and glossy.

### BEE BRAND FLEA POWDER

Made from active derris derivatives with a clay base for the control of fleas and lice on animals.

**ASK YOUR JOBBER**—or write to us today—for prices and full information on the complete McCormick-Red Arrow Line of profit-making insecticides for the seed trade. Free spray charts and other sales helps are yours for the asking.

## THE McCORMICK SALES COMPANY BALTIMORE, MARYLAND

IN CANADA: McCormick & Co. (Canada), Ltd.  
 454 King Street, West, Toronto, Ontario



**TABLE OF TOLERANCE FOR WEED SEEDS, OTHER CROP SEED, AND INERT MATTER FOR OTHER THAN CERTAIN CHAFFY GRASSES**

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
0	.20	.21	.23	.25	.27	.29	.31	.33	.35	.37	0
1	.39	.41	.43	.45	.47	.49	.51	.53	.55	.57	1
2	.59	.61	.63	.65	.66	.68	.70	.72	.74	.76	2
3	.78	.80	.81	.83	.85	.87	.89	.91	.93	.94	3
4	.96	.98	1.00	1.02	1.04	1.05	1.06	1.08	1.10	1.12	4
5	1.15	1.16	1.18	1.20	1.22	1.23	1.25	1.27	1.29	1.31	5
6	1.32	1.34	1.36	1.38	1.39	1.41	1.43	1.45	1.46	1.48	6
7	1.50	1.51	1.53	1.55	1.56	1.58	1.60	1.62	1.63	1.65	7
8	1.67	1.68	1.70	1.72	1.73	1.75	1.77	1.78	1.80	1.82	8
9	1.83	1.85	1.87	1.88	1.90	1.91	1.93	1.95	1.96	1.98	9
10	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.11	2.12	2.14	10
11	2.15	2.17	2.18	2.20	2.22	2.23	2.25	2.26	2.28	2.29	11
12	2.31	2.32	2.34	2.35	2.37	2.38	2.40	2.41	2.43	2.44	12
13	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.57	2.59	13
14	2.60	2.62	2.63	2.65	2.66	2.67	2.69	2.70	2.72	2.73	14
15	2.75	2.76	2.77	2.79	2.80	2.81	2.83	2.84	2.86	2.87	15
16	2.88	2.90	2.91	2.92	2.94	2.95	2.96	2.98	2.89	3.00	16
17	3.02	3.03	3.04	3.06	3.07	3.08	3.10	3.11	3.12	3.13	17
18	3.15	3.16	3.17	3.19	3.20	3.21	3.22	3.24	3.25	3.26	18
19	3.27	3.28	3.30	3.31	3.32	3.33	3.35	3.36	3.37	3.38	19
20	3.40	3.41	3.42	3.43	3.44	3.45	3.47	3.48	3.49	3.50	20
21	3.51	3.52	3.54	3.55	3.56	3.57	3.58	3.59	3.60	3.62	21
22	3.63	3.64	3.65	3.66	3.67	3.68	3.69	3.70	3.72	3.73	22
23	3.74	3.75	3.76	3.77	3.78	3.79	3.80	3.81	3.82	3.83	23
24	3.84	3.85	3.86	3.87	3.88	3.89	3.90	3.91	3.92	3.93	24
25	3.95	3.95	3.96	3.97	3.98	3.99	4.00	4.01	4.02	4.03	25
26	4.04	4.05	4.06	4.07	4.08	4.09	4.10	4.11	4.12	4.13	26
27	4.14	4.15	4.16	4.16	4.17	4.18	4.19	4.20	4.21	4.22	27
28	4.23	4.24	4.24	4.25	4.26	4.27	4.28	4.29	4.30	4.30	28
29	4.31	4.32	4.33	4.34	4.35	4.35	4.36	4.37	4.38	4.39	29
30	4.40	4.40	4.41	4.42	4.43	4.43	4.44	4.45	4.46	4.47	30
31	4.47	4.48	4.49	4.50	4.50	4.51	4.52	4.53	4.53	4.54	31
32	4.55	4.55	4.56	4.57	4.58	4.58	4.59	4.60	4.60	4.61	32
33	4.62	4.62	4.63	4.64	4.64	4.65	4.66	4.66	4.67	4.68	33
34	4.68	4.69	4.70	4.70	4.71	4.71	4.72	4.73	4.73	4.74	34
35	4.75	4.75	4.76	4.76	4.77	4.77	4.78	4.79	4.79	4.80	35
36	4.80	4.81	4.81	4.82	4.83	4.83	4.84	4.84	4.85	4.85	36
37	4.86	4.86	4.87	4.87	4.88	4.88	4.89	4.89	4.90	4.90	37
38	4.91	4.91	4.92	4.92	4.93	4.93	4.94	4.94	4.94	4.95	38
39	4.95	4.96	4.96	4.97	4.97	4.97	4.98	4.98	4.99	4.99	39
40	5.00	5.00	5.00	5.00	5.01	5.01	5.02	5.02	5.03	5.03	40

Example—If the sample tested shows 4.40% of weed seeds, other crop seeds and inert matter, the tolerance is computed as follows: Find 4 in the "value" column, then .40 at top of table. These two intersect at 1.04; hence the tolerance is 1.04%.

**Table of Tolerance for Inert Matter, Weed Seed, and Crop Seed for the following: Poa spp., Argostis spp. Festuca spp., brome grass, crested wheatgrass, orchard grass, velvet grass, tall oatgrass, meadow foxtail, sweet vernalgrass, Rhodes grass, Dallis grass, carpet grass and Bermuda grass, and mixtures containing these seeds singly or combined in excess of 50%**

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
0	.20	.21	.23	.25	.27	.29	.31	.33	.35	.37	0
1	.39	.41	.43	.45	.47	.49	.51	.53	.55	.58	1
2	.60	.62	.64	.66	.67	.69	.71	.73	.76	.78	2
3	.80	.82	.83	.85	.87	.90	.92	.94	.96	.97	3
4	.99	1.02	1.04	1.06	1.08	1.09	1.10	1.13	1.15	1.17	4
5	1.20	1.21	1.24	1.26	1.28	1.29	1.31	1.33	1.35	1.37	5
6	1.39	1.42	1.44	1.46	1.47	1.50	1.52	1.54	1.55	1.58	6
7	1.60	1.61	1.64	1.66	1.67	1.69	1.72	1.74	1.75	1.78	7
8	1.80	1.81	1.83	1.86	1.87	1.89	1.92	1.93	1.95	1.98	8
9	1.99	2.01	2.04	2.06	2.07	2.09	2.11	2.13	2.15	2.17	9
10	2.20	2.21	2.23	2.25	2.27	2.28	2.31	2.33	2.34	2.37	10
11	2.38	2.41	2.42	2.44	2.47	2.48	2.51	2.52	2.54	2.56	11
12	2.58	2.60	2.62	2.63	2.66	2.67	2.70	2.71	2.74	2.75	12
13	2.77	2.79	2.81	2.83	2.85	2.87	2.89	2.91	2.92	2.95	13
14	2.96	2.98	3.00	3.03	3.04	3.05	3.07	3.09	3.12	3.13	14
15	3.16	3.17	3.19	3.21	3.23	3.24	3.26	3.28	3.29	3.32	15

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Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
16	3.34	3.36	3.38	3.39	3.42	3.43	3.45	3.47	3.49	3.50	16
17	3.53	3.54	3.56	3.58	3.60	3.61	3.64	3.66	3.67	3.69	17
18	3.71	3.73	3.74	3.77	3.78	3.80	3.81	3.84	3.86	3.87	18
19	3.89	3.90	3.93	3.94	3.96	3.97	4.00	4.02	4.03	4.05	19
20	4.08	4.09	4.11	4.12	4.14	4.15	4.18	4.20	4.21	4.23	20
21	4.24	4.26	4.29	4.30	4.32	4.33	4.35	4.36	4.38	4.41	21
22	4.42	4.44	4.46	4.47	4.49	4.50	4.52	4.53	4.56	4.58	22
23	4.60	4.61	4.63	4.64	4.66	4.68	4.69	4.71	4.72	4.74	23
24	4.76	4.77	4.79	4.81	4.82	4.84	4.85	4.87	4.89	4.90	24
25	4.93	4.94	4.95	4.97	4.99	5.00	5.02	5.04	5.05	5.07	25
26	5.09	5.10	5.12	5.14	5.15	5.17	5.19	5.20	5.22	5.24	26
27	5.25	5.27	5.29	5.29	5.31	5.32	5.34	5.36	5.38	5.39	27
28	5.41	5.43	5.43	5.45	5.46	5.48	5.50	5.53	5.53	5.54	28
29	5.55	5.57	5.59	5.61	5.62	5.63	5.65	5.66	5.68	5.70	29
30	5.72	5.72	5.74	5.75	5.77	5.78	5.79	5.81	5.83	5.85	30
31	5.85	5.87	5.89	5.90	5.91	5.93	5.94	5.96	5.97	5.98	31
32	6.00	6.01	6.02	6.04	6.06	6.06	6.08	6.10	6.10	6.12	32
33	6.14	6.14	6.16	6.18	6.18	6.20	6.22	6.23	6.24	6.26	33
34	6.27	6.28	6.30	6.31	6.33	6.33	6.35	6.37	6.37	6.39	34
35	6.41	6.41	6.43	6.44	6.45	6.46	6.48	6.50	6.50	6.52	35
36	6.52	6.54	6.55	6.56	6.58	6.59	6.61	6.61	6.63	6.63	36
37	6.65	6.66	6.68	6.68	6.70	6.71	6.72	6.73	6.75	6.75	37
38	6.77	6.78	6.79	6.80	6.82	6.82	6.84	6.85	6.85	6.87	38
39	6.88	6.89	6.90	6.92	6.92	6.93	6.95	6.95	6.97	6.98	39
40	7.00	7.00	7.01	7.01	7.03	7.03	7.05	7.06	7.08	7.08	40

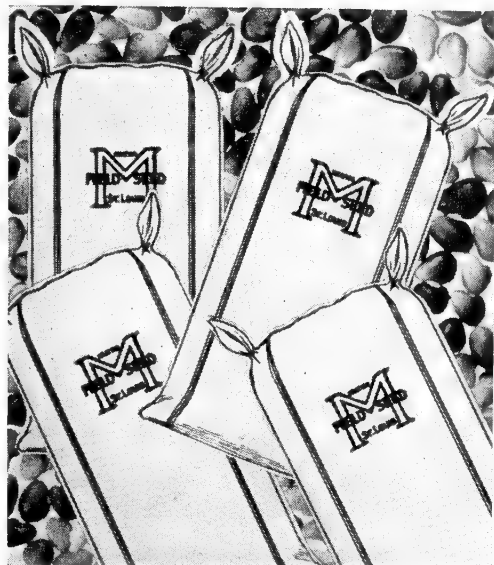
Example—If the sample tested shows 3.30% of weed seeds, other crop seeds and inert matter, the tolerance is computed as follows: Find 3 in the "value" column, then .30 at top of table. These two intersect at .85; hence the tolerance is .85%.

**Table of Tolerance for Pure Seed Variations for the following: Poa spp., Agrostis spp., Festuca spp., bromegrass, crested wheatgrass, orchard grass, velvet grass, tall oatgrass, meadow foxtail, sweet vernalgrass, Rhodes grass, Dallis grass, carpet grass, and Bermuda grass, and mixtures containing these seeds singly or combined in excess of 50%**

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
100	.60										100
99	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	99
98	1.00	.98	.96	.94	.92	.90	.88	.86	.83	.81	98
97	1.21	1.19	1.17	1.15	1.12	1.10	1.08	1.07	1.06	1.03	97
96	1.41	1.39	1.38	1.35	1.33	1.31	1.29	1.27	1.24	1.23	96
95	1.62	1.59	1.57	1.54	1.52	1.51	1.50	1.48	1.45	1.43	95
94	1.82	1.81	1.78	1.76	1.74	1.71	1.70	1.68	1.66	1.63	94
93	2.03	2.00	1.98	1.97	1.95	1.92	1.90	1.87	1.86	1.84	93
92	2.23	2.21	2.18	2.17	2.15	2.12	2.10	2.09	2.06	2.04	92
91	2.43	2.41	2.39	2.36	2.35	2.33	2.30	2.28	2.27	2.24	91
90	2.64	2.61	2.59	2.57	2.55	2.52	2.51	2.49	2.47	2.45	90
89	2.83	2.81	2.79	2.77	2.75	2.72	2.71	2.69	2.67	2.65	89
88	3.03	3.01	2.99	2.97	2.95	2.93	2.91	2.89	2.86	2.85	88
87	3.23	3.20	3.19	3.16	3.15	3.12	3.11	3.08	3.07	3.04	87
86	3.42	3.40	3.37	3.36	3.35	3.32	3.31	3.28	3.27	3.24	86
85	3.62	3.59	3.58	3.55	3.54	3.51	3.50	3.48	3.46	3.44	85
84	3.80	3.78	3.77	3.74	3.73	3.70	3.69	3.67	3.65	3.63	84
83	4.00	3.97	3.95	3.94	3.91	3.90	3.88	3.86	3.84	3.83	83
82	4.18	4.16	4.14	4.13	4.11	4.08	4.07	4.05	4.03	4.01	82
81	4.36	4.35	4.33	4.32	4.29	4.27	4.26	4.24	4.21	4.20	81
80	4.56	4.53	4.51	4.49	4.48	4.46	4.44	4.42	4.41	4.38	80
79	4.73	4.71	4.69	4.68	4.66	4.63	4.62	4.60	4.59	4.57	79
78	4.92	4.90	4.87	4.85	4.83	4.82	4.80	4.79	4.77	4.74	78
77	5.09	5.07	5.05	5.03	5.01	4.99	4.98	4.96	4.94	4.93	77
76	5.25	5.24	5.22	5.20	5.19	5.17	5.15	5.14	5.12	5.10	76
75	5.43	5.40	5.39	5.37	5.35	5.34	5.32	5.30	5.29	5.27	75
74	5.59	5.57	5.56	5.54	5.52	5.50	5.49	5.47	5.45	5.44	74
73	5.76	5.84	5.73	5.71	5.69	5.67	5.66	5.64	5.63	5.61	73
72	5.92	5.90	5.89	5.87	5.85	5.83	5.82	5.80	5.80	5.78	72
71	6.07	6.05	6.05	6.03	6.01	6.00	5.98	5.96	5.94	5.94	71
70	6.24	6.22	6.20	6.18	6.16	6.15	6.14	6.12	6.11	6.09	70
69	6.37	6.37	6.35	6.33	6.32	6.30	6.29	6.28	6.26	6.24	69
68	6.53	6.51	6.49	6.49	6.47	6.45	6.43	6.43	6.41	6.39	68
67	6.67	6.65	6.64	6.63	6.61	6.59	6.59	6.57	6.55	6.53	67
66	6.80	6.80	6.78	6.76	6.76	6.74	6.72	6.71	6.71	6.68	66
65	6.95	6.93	6.91	6.91	6.89	6.87	6.86	6.84	6.84	6.82	65

(Continued on page 70)

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Lawn Grass	Sudan Grass	Popcorn
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Timothy	Millets	

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(Continued from preceding page)

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
64	7.07	7.06	7.04	7.04	7.02	7.00	7.00	6.98	6.97	6.95	64
63	7.20	7.18	7.18	7.16	7.15	7.13	7.13	7.11	7.09	7.09	63
62	7.32	7.30	7.30	7.28	7.27	7.26	7.25	7.23	7.23	7.21	62
61	7.43	7.43	7.41	7.40	7.40	7.38	7.36	7.35	7.35	7.33	61
60	7.56	7.54	7.53	7.51	7.51	7.49	7.48	7.48	7.46	7.45	60
59	7.65	7.65	7.64	7.62	7.62	7.60	7.59	7.59	7.57	7.56	59
58	7.76	7.74	7.74	7.73	7.71	7.71	7.70	7.68	7.68	7.67	58
57	7.86	7.84	7.83	7.83	7.82	7.80	7.80	7.79	7.77	7.77	57
56	7.94	7.94	7.93	7.93	7.91	7.90	7.90	7.89	7.87	7.87	56
55	8.04	8.02	8.02	8.01	8.01	7.99	7.98	7.97	7.97	7.96	55
54	8.11	8.11	8.10	8.10	8.09	8.07	8.06	8.06	8.05	8.05	54
53	8.20	8.19	8.17	8.17	8.16	8.16	8.15	8.14	8.14	8.12	53
52	8.27	8.26	8.26	8.24	8.23	8.23	8.23	8.21	8.21	8.20	52
51	8.32	8.32	8.31	8.31	8.30	8.30	8.29	8.28	8.28	8.27	51
50	8.40	8.37	8.37	8.36	8.36	8.35	8.35	8.34	8.34	8.33	50

Example. If the purity test is 91.40%, use the table in this manner: Find 91 in the "value" column, then the .40 at top of table. These two intersect at 2.35. Therefore the tolerance allowed would be 2.35%.

#### EXTENDED TOLERANCE TABLE FOR OCCURRENCE OF NOXIOUS WEED SEEDS

Number Found by Analysis	The Following Are Within the Tolerance	Number Found by Analysis	The Following Are Within the Tolerance	Number Found by Analysis	The Following Are Within the Tolerance	Number Found by Analysis	The Following Are Within the Tolerance	Number Found by Analysis	The Following Are Within the Tolerance	Number Found by Analysis	The Following Are Within the Tolerance
2	0	66	51	122	101	176	151	230	201	283	251
4	1	67	52	123	102	177	152	231	202	284	252
6	2	68	53	124	103	178	153	232	203	285	253
8	3	69	54	125	104	179	154	233	204	286	254
9	4	71	55	126	105	180	155	234	205	287	255
11	5	72	56	127	106	181	156	235	206	288	256
12	6	73	57	128	107	183	157	236	207	289	257
13	7	74	58	129	108	184	158	237	208	290	258
14	8	75	59	130	109	185	159	238	209	292	259
16	9	76	60	132	110	186	160	239	210	293	260
17	10	77	61	133	111	187	161	240	211	294	261
18	11	78	62	134	112	188	162	242	212	295	262
20	12	80	63	135	113	189	163	243	213	296	263
21	13	81	64	136	114	190	164	244	214	297	264
22	14	82	65	137	115	191	165	245	215	298	265
23	15	83	66	138	116	192	166	246	216	299	266
24	16	84	67	139	117	193	167	247	217	300	267
25	17	85	68	140	118	194	168	248	218	301	268
27	18	86	69	141	119	195	169	249	219	302	269
28	19	87	70	142	120	197	170	250	220	303	270
29	20	89	71	144	121	198	171	251	221	304	271
30	21	90	72	145	122	199	172	252	222	305	272
32	22	91	73	146	123	200	173	253	223	306	273
33	23	92	74	147	124	201	174	254	224	307	274
34	24	93	75	148	125	202	175	255	225	309	275
35	25	94	76	149	126	203	176	256	226	310	276
37	26	95	77	150	127	204	177	258	227	311	277
38	27	96	78	151	128	205	178	259	228	312	278
39	28	97	79	152	129	206	179	260	229	313	279
41	29	99	80	153	130	207	180	261	230	314	280
42	30	100	81	154	131	208	181	262	231	315	281
43	31	101	82	156	132	209	182	263	232	316	282
44	32	102	83	157	133	211	183	264	233	317	283
45	33	103	84	158	134	212	184	265	234	318	284
46	34	104	85	159	135	213	185	266	235	319	285
48	35	105	86	160	136	214	186	267	236	320	286
49	36	106	87	161	137	215	187	268	237	321	287
50	37	107	88	162	138	216	188	269	238	322	288
51	38	108	89	163	139	217	189	270	239	323	289
52	39	110	90	164	140	218	190	271	240	324	290
53	40	111	91	165	141	219	191	272	241	325	291
55	41	112	92	166	142	220	192	273	242	326	292
56	42	113	93	167	143	221	193	275	243	328	293
57	43	114	94	169	144	222	194	276	244	329	294
58	44	115	95	170	145	223	195	277	245	330	295
59	45	116	96	171	146	224	196	278	246	331	296
60	46	117	97	172	147	226	197	279	247	332	297
61	47	118	98	173	148	227	198	280	248	333	298
63	48	120	99	174	149	228	199	281	249	334	299
64	49	121	100	175	150	229	200	282	250	335	300
65	50										

Example—If the sample contains 50 noxious weed seeds the tolerance allowance is 37.





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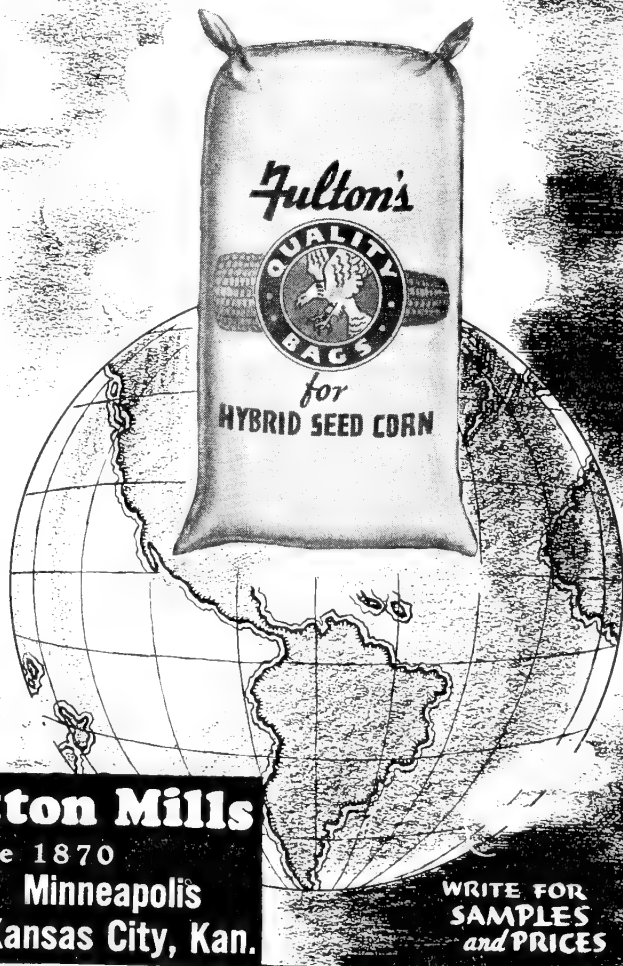
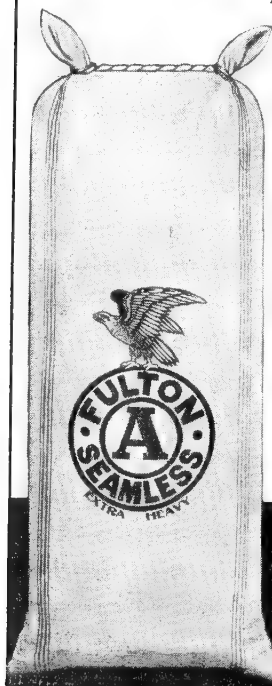
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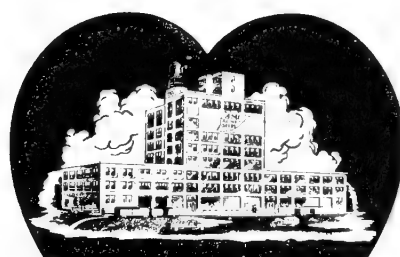
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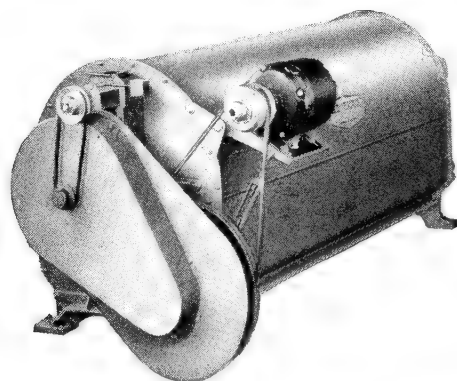
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Vatter, A. G., G. R.  
Bern, Switzerland

## EXPORTS OF ALFALFA, CLOVER AND TIMOTHY SEED 1911-1941, IN POUNDS

Compiled from Foreign Commerce and Navigation of the United States by the Agricultural Statistics Division,  
Agricultural Marketing Service, U. S. Department of Agriculture.

Year	Alfalfa	Red clover <sup>1</sup>	Clover, other than red	Timothy	Other grass seeds	Kentucky Bluegrass <sup>2</sup>	Redtop <sup>3</sup>
1911	.....	2,407,145	.....	7,893,121	.....	.....	.....
1912	.....	3,222,963	.....	11,111,807	.....	.....	.....
1913	.....	4,965,994	.....	13,542,705	5,062,473	.....	.....
1914	.....	6,659,971	.....	13,688,707	4,666,000	.....	.....
1915	.....	9,527,258	.....	17,646,273	3,668,694	.....	.....
1916	.....	6,049,990	.....	12,428,140	4,120,544	.....	.....
1917	.....	8,738,668	.....	13,880,725	5,426,305	.....	.....
1918	.....	5,985,526	.....	8,564,384	2,952,193	.....	.....
1919	.....	7,943,749	.....	13,346,358	4,440,490	.....	.....
1920	.....	4,985,695	.....	13,522,134	4,252,152	.....	.....
1921	.....	5,734,754	.....	19,901,945	5,171,563	.....	.....
1922	1,025,129	2,015,891	2,477,902	18,120,790	4,198,992	.....	.....
1923	399,346	800,550	859,531	18,870,181	4,004,157	.....	.....
1924	363,369	516,225	1,131,845	16,535,051	4,070,332	.....	.....
1925	1,332,992	415,921	721,298	12,484,598	5,605,583	.....	.....
1926	741,516	583,980	1,168,945	13,685,157	5,888,540	.....	.....
1927	1,393,474	1,279,867	792,734	16,669,986	5,659,642	.....	.....
1928	781,920	455,738	389,951	12,220,398	5,257,668	.....	.....
1929	825,830	523,535	427,492	9,195,022	8,194,009	.....	.....
1930	832,965	535,472	708,979	15,828,571	6,419,390	.....	.....
1931	218,044	670,304	256,818	10,476,344	5,189,679	.....	.....
1932	1,564,641	297,899	318,867	10,890,662	3,509,375	.....	.....
1933	1,198,796	3,025,438	133,863	5,009,247	3,957,223	.....	.....
1934	958,901	1,091,620	1,769,465	3,698,220	5,305,850	.....	.....
1935	508,997	311,437	774,667	3,424,716	4,420,259	.....	.....
1936	283,573	125,271	99,065	4,002,606	4,473,151	.....	.....
1937	3,098,260	463,189	174,323	3,231,770	7,425,136	.....	.....
1938	354,888	182,772	130,377	4,491,549	10,465,941	.....	.....
1939	449,193	224,249	488,960	10,406,336	6,149,179	.....	.....
1940	485,220	726,492	1,276,226	9,584,470	9,451,317	664,560	445,664
1941 <sup>3</sup>	654,462	1,054,424	2,085,419	5,421,740	7,422,759	435,400	451,635

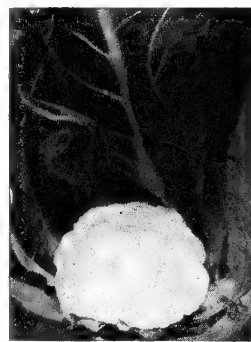
<sup>1</sup>Including all clover 1911-21.

<sup>2</sup>Prior to 1940 included with "other grass seeds."

<sup>3</sup>Eight months ended August 31, 1941.

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# FIELD CROPS PLANTING INSTRUCTIONS

\*\*

KIND OF SEED	Lbs. per Bu.	Sow Lbs. per Acre	Time to Sow	Depth to Sow Inches
Alfalfa—broadcast	60	18 to 22	Spring and early fall	1 to 1½
Alfalfa—drilled	60	12 to 15	Spring and early fall	1 to 1½
Artichokes, Jerusalem	50	150 to 200	March, April, May	4
Barley—drilled	48	120 to 150	March, April	1 to 1½
Beet, Mangel Stock	30	6 to 8	April, May, June	1
Beans, Navy, Field (Small)	60	25 to 30	May, June, July	1
Beans, Great Northern (Large Navy)	60	40 to 60	May, June, July	1
Bermuda Grass	40	4 to 6	March to May	½
Black Medic	60	18 to 20	Feb., March, April	½
Blue Grass, Kentucky, for lawns	14*	125	Early spring, early Sept.	½
Blue Grass, Kentucky, for pastures	14*	20 to 30	Early spring, early Sept.	½
Blue Grass, Canada, for lawns	14*	125	Early spring, early Sept.	½
Blue Grass, Canada, for pasture	14*	20	Early spring, early Sept.	½
Brome Grass	14*	20	Spring	1½ to 2
Broom Corn	48	5 to 8	April, May	1 to 1½
Buckwheat	52	50 to 60	Late Spring	1 to 1½
Clover, Alsike	60	4 to 5	Winter to April	½ to 1
Clover, Alsike—in mixture	60	2 to 4	Winter to April	½ to 1
Clover, Alsike and Timothy, mixed		8 to 10	Winter to April	
Clover, Burr	12	30 to 40	Aug., Sept., Oct.	½
Clover, Crimson	60	12 to 15	July to October	½ to 1
Clover, Hop	60	10 to 12	Feb., Mar., April, Sept.	¼
Clover, Mammoth	60	6 to 10	Winter, early April	½ to 1
Clover, Mammoth, in mixture	60			
Clover, Red	60	6 to 10	Winter, early April	½ to 1
Clover, Red, in mixture	60			
Clover, Sweet, white or yellow	60	12 to 15	March to August	½ to 1
Clover, Sweet, white (unhulled)	30	25 to 30		
Clover, White Dutch	60	6 to 8	March to April	½ to 1
Corn	56	8 to 10	Late spring	1 to 1½
Corn, for Silage	56	14 to 20	Late spring	1 to 1½
Cotton Seed	32	32	April, May, June	¾ to 1
Crotalaria	40	12 to 15	April, May, June	¾
Dallas Grass	10	8 to 10	March, April, May	½
Egyptian Wheat, Shalla	50	10 to 12	May, June, July	1½ to 2
Fescue, Meadow	24*	20 to 30	Early spring, Aug., Sept.	½
Fescue, other varieties	14*	28 to 35	Early spring, Aug., Sept.	½
Hegari	50	8 to 10	April, May, June	1½
Johnson Grass	28	20 to 30	April to July	1
Kaffir-Milo-Feterita-Grohoma (drill)	56	10 to 15	May, June	1 to 1½
Kaffir-Milo-Feterita-Grohoma (broadcast)	56	40 to 50	May, June	1 to 1½
Kale, Thousand Headed	50	4 to 5	Mar., Apr., May, Aug., Sept.	½
Lawn Grass, mixed		125	Early spring, early fall	½
Lespedeza—Common	25	25-30	Early spring after frost	1 to 2
Lespedeza—Kobe	25	20-25	Early spring after frost	1 to 2
Lespedeza—Korean	25	20-25	Early spring after frost	1 to 2
Lespedeza—Sericea	60	25-30	Early spring after frost	1 to 2
Millet—for Hay	50	30	Late May to early July	½ to 1
Millet—for Seed	50	15	Late May to early July	½ to 1
Millet, Hungarian, for Hay	48	48	Late May to early July	½ to 1
Millet, Hungarian, for Seed	48	30	Late May to early July	½ to 1
Millet—Japanese	35	20 to 30	Late May to early July	½ to 1
Mung Beans	60	8 to 10	May, June, July	½ to 1
Oats	32	60 to 80	March, April	1 to 1½
Orchard Grass—for Hay	14*	21 to 28	Early spring, fall	½ to 1
Orchard Grass—for Seed	14*	10 to 14	Early spring, fall	½ to 1
Pasture Mixtures		30 to 40	Early spring, fall	½ to 1
Peanuts	22	35 to 40	May, June	2
Peas, Austrian Winter	60	30 to 35	Aug., Sept., Oct.	2
Peas, Canada Field (broadcast)	60	120 to 150	Early spring	1 to 2
Peas, Canada Field, with oats	60	75 to 90	Early spring	
Peas, Cow, broadcast	60	75 to 90	May or June	1 to 2
Peas, Cow, drilled	60	25	May or June	1 to 2
Peas, Cow, in drill with corn	60	20 to 30	May or June	1 to 2
Rape, broadcast	50	5 to 8	Early May to late July	½ to 1½
Rape, drilled	50	4 to 5	Early May to late July	½ to 1½
Red Top, Solid Seed	14*	6 to 8	April or early Sept.	½
Red Top, Unhulled	14*	20 to 25	April or early Sept.	½
Rye, Grain	56	84 to 112	Sept. to Nov.	1 to 1½
Rye, Grass	24	28 to 35	April or early Sept.	½
Sagrain	50	8 to 10	Apr., May, June, July	1
Sorghum Forage, broadcast	50	40 to 50	May, June	1 to 1½
Sorghum Forage, drilled	50	8 to 10	May, June	1 to 1½
Sorghum Syrup	50	8 to 10	May, June	1 to 1½
Sorghum, grain varieties, broadcast	56	40 to 50	May, June	1 to 1½
Sorghum, grain varieties, drilled	55	10 to 15	May, June	1 to 1½
Soy Beans, broadcast	60	75 to 120	May, June	1 to 2
Soy Beans, drilled	60	25	May, June	1 to 2
Soy Beans, in drill with corn	60	15 to 20	May, June	1 to 2
Sudan Grass, broadcast	40	20 to 30	Late May to early July	½ to 1
Sudan Grass, drilled	40	10 to 15	Late May to early July	½ to 1
Sunflower	32	6 to 8	May	1 to 2
Timothy	45	8 to 10	Spring and fall	½
Velvet Beans	60	15 to 30	May, June	3 to 4
Vetch, Winter or Hairy	60	40 to 60	June to Sept.	1 to 2
Vetch, Spring	60	40 to 60	March or April	1 to 2
Wheat, Winter	60	75 to 90	Sept. to Nov.	1 to 1½

\*NOTE.—Weights per bushel for certain grasses are old standards. Good re-cleaned seed is usually heavier.

\*\*Earl M. Page, Pres., Corneli Seed Co., St. Louis, Mo.

# Several Ways

## IN WHICH TO PROFIT FROM THIS MORE EFFECTIVE FUMIGANT!

### WAREHOUSE . . .

for your own fumigations to control Insects and Rodents

### EASIER SOIL FUMIGATION

to control nematodes, disease-causing fungi, insects, weed seeds and persistent weeds

### RESALE IN 1 LB. BOTTLES

for use in treating top soil, for weed control and other soil purposes

. . . . . Also for FARM RODENTS, etc.

### RODENTS . . .

Use Larvacide to fumigate large and small warehouses and other premises to control rats and mice. Light application with overnight exposure does an effective job. Brings most rodents out of their retreats to die on open floor, without carcass nuisance. Unlike bait and traps, Larvacide goes after the pests, instead of waiting for them to seek it out.



*In building fumigation, pour half pound or so onto crumpled sack at each location keeping head well away from fumes and working rapidly toward exit.*

Using the new method recently developed and explained in the Larvacide Instruction Sheet enclosed with each bottle, it is NOW POSSIBLE TO DO RODENT FUMIGATION ON SMALL JOBS WITHOUT NEED OF MASK PROTECTION

For FARM USE—Sell Larvacide in the 1 lb. bottle for burrow treatment. Half an ounce or so, applied from this handy dispenser bottle as directed, gets results. Larvacide also controls ground hogs and other burrowing animal pests.

### INSECTS . . .

Use Larvacide to fumigate seed in vaults and the seed warehouse, when necessary. Insect dosage gets rodents too, without extra work. Larvacide penetrates kernels to kill egglife and larvae, as well as

adult insects. It is used to fumigate dry seed without effect upon germination.

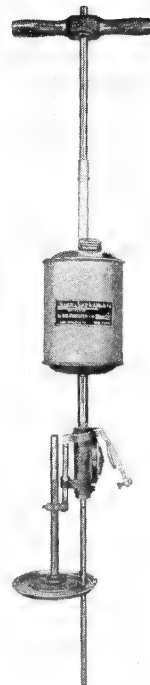
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Use Larvacide in seed beds, frames, flats, greenhouses and compost soil. TREAT TOP SOIL for weed seed control. Application is made with the Larvajector, which automatically measures and injects required amounts.

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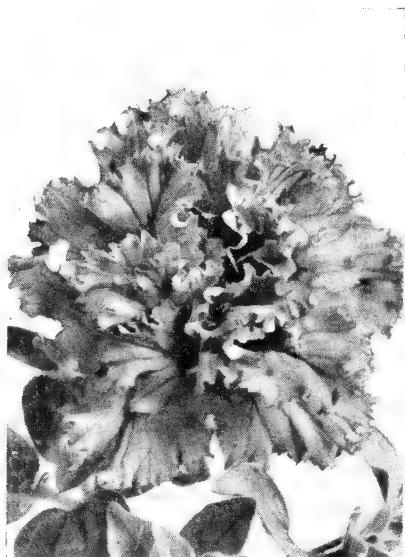
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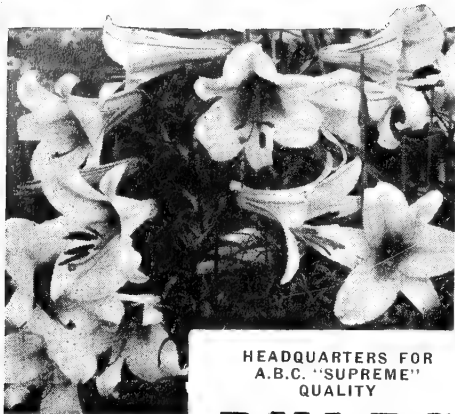
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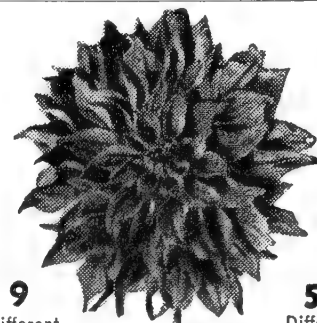
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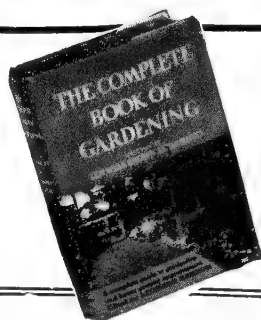
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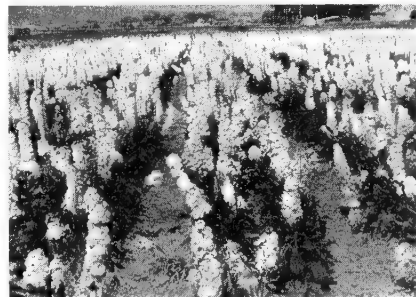
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# Vegetable Planting Chart

Vegetable	Depth to Cover (inches)	Space Between Rows	Space to Set Plants or Thin Out Seedlings	Time Required to Produce Crop Ready for Use	Approximate Yield per 20 ft. of Row	Seed Required to Sow One Acre	Time to Plant in Open Ground	
							South	North
Asparagus	Seeds, 1 in. Plants, 4 in.	3 to 4 ft.	12 in.	Seeds 4 years Plants 2 years	50 bunches of 1 doz. each for entire patch	4 lbs.	Autumn or early spring	Early spring
Beans (Limas, see below)	Bush Pole	2 in. 2 in.	2 ft. 3 ft.	4 in. 3 ft.	60 to 90 days 90 to 120 days	8 qts. 10 qts.	50 lbs. 30 to 50 lbs.	Late spring May and June
Beet	1/2 in.	18 in.	2 to 3 in.	60 to 80 days	5 doz. roots	8 to 14 lbs.	Feb. to April— Aug. to Sept.	April to Aug.
Broccoli	1 1/4 in.	2 1/2 ft.	24 in.	120 days	20 heads	4 ozs.		
Brussels Sprouts	1 1/4 in.	2 1/2 ft.	24 in.	120 days	20 qts.	4 ozs.	Jan. to July	May and June
Cabbage		2 1/2 ft.	18 to 24 in.	100 to 150 days	10 heads	4 ozs.	Oct. to Dec.— June and July	Mar. to June
Chinese Cabbage	1/4 in.	2 1/2 ft.	12 in.	80 to 100 days	20 heads			
Carrot	1/8 in.	2 ft.	2 to 4 in.	45 to 60 days	5 doz. roots	3 to 4 lbs.	Mar. and Apr.—Sept.	April to June
Cauliflower		2 to 3 ft.	24 in.	120 to 150 days	8 to 10 heads	4 ozs.	Jan. and Feb.—June	April to June
Celery		3 ft.	6 in.	100 to 120 days	2 doz. stalks	4 ozs.	Aug. and Oct.	May and June
Corn, Sweet	2 in.	3 ft.	12 in.	80 to 120 days	40 ears	8 to 10 lbs.	Feb. to April	May to July
Cucumber	1/4 in.	4 ft.	3 to hill	60 to 80 days	20 to 30 pickles	3 to 4 lbs.	Feb. and Mar.—Sept.	April to July
Eggplant		2 1/2 ft.	24 in.	100 to 120 days	30 to 40 fruits	5 to 6 ozs.	Feb. to April	April and May
Endive	1/8 in.	2 ft.	10 to 12 in.	60 to 80 days	30 to 40 plants	4 to 5 lbs.	Feb. to April	April and July
Kale	1/8 in.	2 1/2 ft.	12 in.	80 to 100 days	20 plants	4 to 5 lbs.	Oct. to Feb.	Aug. to Sept.— Mar. and Apr.
Leek	1/8 in.	2 ft.	4 in.	100 days	60 plants	4 lbs.	May to Sept.	Mar. to May
Lettuce	1/8 in.	2 ft.	10 to 12 in.	45 to 60 days	20 heads	1 1/2 to 2 lbs.	Sept. to Mar.	Mar. to Sept.
Melon, Musk	1/4 in.	4 ft.	3 to hill	100 to 120 days	30 fruits	3 to 4 lbs.	Feb. to April	April to June
Beans, Limas	Bush Pole	2 in. 2 in.	3 ft. 4 ft.	24 in. 3 ft.	100 days 120 days	4 qts. 5 to 6 qts.	30 to 50 lbs.	
Onions	1/8 in.	18 in.	4 in.	80 to 110 days	80 onions 10 to 20 lbs. per row	3 to 4 lbs.	Oct. to Mar.	April to May
Onion Sets	1 in.	18 in.	2 in.	30 to 60 days	120 scallions	60 to 85 lbs.	Early spring	Autumn— Feb. to May
Peas	2 in.	2 1/2 ft.	1 in.	60 to 100 days	10 to 20 qts. of pods	90 to 180 lbs.	Sept. to April	Mar. to June
Pepper		3 ft.	2 ft.	100 days	10 doz. peppers	1/2 to 1 lb.	Early spring	May and June
Potatoes	4 in.	3 ft.	6 in.	100 days	10 to 15 lbs.		Jan. to April	Mar. to June
Potatoes, Sweet	3 in.	3 1/2 ft.	2 ft.	5 mos.			April and May	May and June
Pumpkin	1/2 in.	4 to 6 ft.	3 to hill	100 to 120 days	5 to 10 fruits	3 to 4 lbs.	April and May	May and July
Radish	1/2 in.	18 in.	1 to 4 in.	30 to 60 days	10 to 15 doz.	10 to 12 lbs.	Sept. to April	Mar. to Sept.
Rhubarb	6 in.	3 ft.	3 ft.	60 days	6 doz. stalks	3 lbs.		Early spring
Rutabaga	1/8 in.	2 ft.	6 in.	90 to 100 days	50 to 60 roots	2 to 4 lbs.	Aug. and Sept.	May and June
Spinach	1/4 in.	18 in.	4 in.	60 days	50 to 60 plants	15 to 20 lbs.	Sept. to Feb.	Sept. or very early spring
Spinach, N. Zealand	1 in.	18 in.	3 in.	2 mos.				
Squash	1/4 in.	4 to 6 ft.	3 to hill	100 to 120 days	2 doz. fruits, bushvar.	4 to 6 lbs.	Spring	April to July
Swiss Chard	1/2 in.	2 ft.	12 in.	90 to 100 days	20 plants	6 to 10 ozs.		
Tomato		3 to 4 ft.	3 ft.	100 to 120 days	15 to 20 lbs. per plant during season	2 ozs.	Dec. to Mar.	May to June
Turnip	1/8 in.	2 ft.	4 in.	60 to 80 days	60 to 80 roots	2 to 3 lbs.	Aug. to Oct.	April to Aug.
Watermelon	1/2 in.	6 ft.	4 to 6 ft.	3 to 4 mos.				

The time requirements for crops to reach edible size varies, of course, according to the seasons and varieties. Different soils also have a profound influence. A tomato, for instance, which in Southern New Jersey will mature in 90 days, may require from 100 to 110 days in sections further north having heavy clay soils. Allowance also must be made for the relative estimate of the yields, due to climatic and soil conditions. But the averages will be found to be fairly accurate on the basis of many years of observation.

1915

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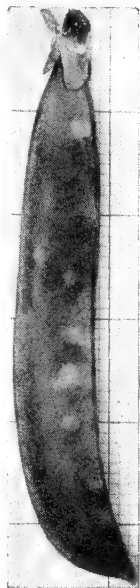
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VEGETABLE SEED GERMINATION STANDARDS—MINIMUM PERCENTAGE

	Fed. Seed Act# Interstate Regulation	Fla. 1941	Mass.§ 1942	Mich. 1942	Mo. 1941	N. C. 1941	Ohio 1940	Ore.† 1939	S. C. 1940	Va. 1940	Wash. 1941	W.Va.‡ 1941	Wis. 1941	Can.‡ 1938	S. D. 1941	Texas* 1941	Ill. 1942	Geo. 1942
Artichoke.....	60	60	60	60	60	..	60	..	60	..	60	60	60	75	60	60	60	60
Asparagus.....	*70	*70	*70	70	*70	*70	*70	70	*70	..	*70	70	70	75	70	70	*70	*70
Bean.....	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	85	80	80
Bean, Large Lima.....	70	70	70	70	70	70	70	70	75	70	70	70	70	..	70	70	70	70
Bean, Small Lima.....	70	70	..	75	70	70	70	80	75	80	70	70	70	..	..	80	70	70
Bean, Fordhook.....	..	..	..	65	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beet.....	65	65	65	65	65	65	65	70	65	65	65	65	65	65	65	65	65	65
Broccoli.....	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Brussels Sprout.....	70	70	70	70	70	70	70	75	70	70	70	70	70	80	70	70	70	70
Cabbage.....	75	75	75	70	75	75	75	80	75	75	75	75	75	80	75	75	75	75
Caraway.....	..	..	..	65	..	..	..	..	..	..	..	..	..	..	..	65	..	..
Carrot.....	55	55	55	55	55	55	55	65	55	55	55	55	55	55	65	55	55	55
Cauliflower.....	75	75	75	70	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Celeriac.....	55	55	55	55	55	55	55	60	55	55	55	55	55	55	55	55	55	55
Celery.....	55	55	55	55	55	55	55	60	55	55	55	55	55	55	55	55	55	55
Chard, Swiss.....	65	65	65	65	65	65	65	70	65	65	65	65	65	65	65	65	65	65
Chicory.....	65	65	65	60	65	65	65	75	65	..	65	65	75	75	65	60	65	65
Citron.....	65	65	65	65	65	65	65	75	65	..	65	..	65	75	..	65	65	65
Co'lard.....	80	80	80	80	80	80	80	80	80	80	80	80	80	..	80	80	80	80
Corn, Sweet.....	75	75	75	75	75	75	75	80	75	75	75	75	75	80	75	75	75	75
Cress, Curled.....	..	40	40	60	80	40	..	..	..	..	..	..	..	75	40	70	..	40
Cress, Upland.....	40	..	..	..	40	..	40	..	40	..	40	..	40	..	..	..	40	..
Cress, Water.....	25	25	25	30	25	25	25	..	25	..	25	..	25	..	25	40	25	25
Cucumber.....	80	80	80	80	80	80	80	80	80	80	80	80	80	75	80	80	80	80
Dandelion.....	45	45	45	..	45	45	45	..	45	..	45	45	..	..	..	..	45	45
Dill.....	..	..	..	60	..	..	..	60	..	..	..	60	60	..	..	60	..	60
Eggplant.....	60	60	60	60	60	60	60	65	60	60	60	60	60	65	60	60	60	60
Endive.....	70	70	70	70	70	70	70	75	70	70	70	70	70	75	70	70	70	70
Fetticus (Corn Salad).....	70	70	70	..	70	70	70	..	70	..	70	70	..	..	70	..	70	70
Kale.....	75	75	75	70	75	75	75	80	75	75	75	75	75	80	75	75	75	75
Kohl Rabi.....	75	75	75	75	75	75	75	75	75	75	75	75	75	80	75	75	75	75
Leek.....	60	60	60	60	60	60	60	75	60	60	60	60	60	75	60	60	60	60
Lettuce.....	80	80	80	80	80	80	80	75	80	75	80	80	80	80	80	75	80	80
Melon, Musk.....	75	75	75	75	75	75	75	80	75	80	75	75	75	75	75	75	75	75
Melon, Honey Dew.....	..	..	..	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Melon, Water.....	70	70	70	70	70	70	70	75	70	70	70	70	70	75	70	70	70	70
Mustard.....	75	75	75	75	75	75	75	75	75	75	75	75	75	75	..	75	75	75
Okra.....	*50	*50	*50	*70	50	50	50	60	50	50	50	50	50	..	50	50	*50	50
Onion.....	70	70	70	70	70	70	70	75	70	70	70	70	70	75	70	70	70	70
Parsley.....	60	60	60	60	60	60	60	65	60	60	60	60	60	65	60	60	60	60
Parsnip.....	60	60	60	60	60	60	60	65	60	60	60	60	60	55	60	60	60	60
Pea.....	80	80	80	80	80	80	80	85	80	80	80	80	80	80	80	80	80	80
Pepper.....	55	55	55	55	55	55	55	60	55	55	55	55	55	65	55	55	55	55
Pumpkin.....	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Radish.....	75	75	75	75	75	75	75	85	75	75	75	75	75	80	75	75	75	75
Rhubarb.....	60	60	60	60	60	60	60	..	60	..	60	60	60	..	60	60	60	60
Rutabaga.....	75	75	75	75	75	75	75	80	75	75	75	75	75	80	75	75	75	75
Sage.....	..	..	..	..	..	..	..	..	..	..	..	60	..	60	..	..	..	60
Salsify.....	75	75	75	75	75	75	75	70	75	75	75	75	75	75	75	75	75	75
Savory.....	..	..	..	..	..	..	..	..	..	..	..	60	..	60	..	..	..	..
Sorrel.....	60	60	60	..	60	60	60	..	60	..	60	60	..	..	..	..	60	60
Spinach.....	60	60	60	60	60	60	60	70	60	60	60	60	60	65	60	60	60	60
Spinach, New Zealand..	40	40	40	..	40	40	40	..	40	..	40	40	40	..	40	..	40	40
Squash.....	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Tomato.....	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Tomato, Husk.....	50	50	50	..	50	50	50	..	50	..	50	50	..	..	50	..	50	50
Turnip.....	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

‡Canada—Chervil 75%, Chives, 75%, Mangel 65%, Sage 55%, Savory 55%, Vegetable Marrow 75%.  
□Georgia—Cardoon 60%.  
#Federal Seed Act—Chinese Cabbage 75%, Pak-choi 75%, Spinach Mustard 75%, Vegetable Mustard 75%.  
§Massachusetts—Chinese Cabbage 75%.  
‡Oregon—Celery Cabbage 75%.  
\*Texas—Sweet Fennel 60%.  
‡W. Virginia—Bean, Pole 80%, Cardoon 60%, Sweet Basil 50%, Sweet Fennel 60%, Sweet Marjoram 65%, Thyme 60%.  
\*Including Hard Seeds.

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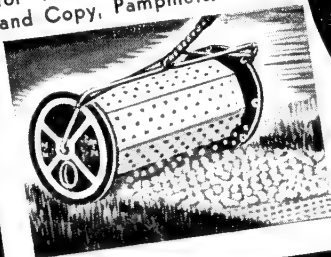
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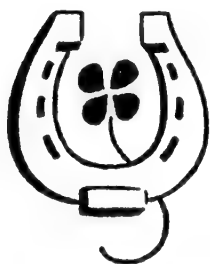
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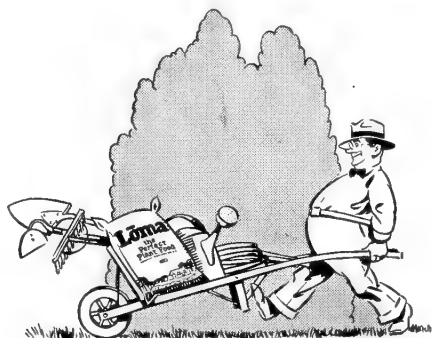
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# State Seed Laws

Compiled by L. J. La Pine  
Seed Analyst

December, 1941

*SEED WORLD and SEED TRADE BUYERS GUIDE wish to acknowledge the work of Miss Macy Spracher, Seed Analyst for Northrup, King & Co., Minneapolis, for her outstanding work in this department in previous editions of the Guide. Much of her work is retained in this compilation of the Seed Laws and to her we give full credit for the arrangement in the 1942 edition, as well as all former volumes. Ed.*

## Grouping of Agricultural Seeds for Noxious Weed Labelling

### GROUP A

a. In excess of one seed in each 5 grams of timothy, redtop, tall meadow oat grass, orchard grass, crested dogstail, Canada bluegrass, Kentucky bluegrass, fescues, brome grasses, perennial and Italian rye grass, western rye grass, crimson clover, red clover, white clover, alsike clover, sweet clover, alfalfa, and all other grasses and clovers not otherwise classified.

b. In excess of one seed in each 25 grams of millets, rape, flax, Sudan grass and other seeds not specified in (a) or (c) of this section.

c. In excess of one seed in each 100 grams of wheat, oats, rye, barley, buckwheat, vetches, and other seeds as large or larger than wheat.

### GROUP B

a. In excess of one seed or bulblet in each 5 grams of Agrostis spp., Poa spp., Rhodes grass, Bermuda grass, timothy, orchard grass, fescues (except meadow fescue), alsike and white clover, reed canary grass, Dallis grass, and other agricultural seeds of similar size and weight, or mixtures within this group;

b. In excess of one seed or bulblet in 10 grams of rye grass, meadow fescue, foxtail millet, alfalfa, red clover, sweet clovers, lespedezas, smooth brome grass, crimson clover, Brassica spp., flax, Agropyron spp., and other agricultural seeds of similar size and weight or mixtures within this group, or of this group with (a);

c. In excess of one seed or bulblet in each 25 grams of proso, Sudan grass

and other agricultural seeds of similar size and weight, or mixtures not specified in (a), (b), or (d);

d. In excess of one seed or bulblet in each 100 grams of wheat, oats, rye, barley, buckwheat, sorghums (except Sudan grass), vetches, and other agricultural seeds of a size and weight similar to, or greater than, those within this group, or any mixtures within this group.

*Note—Where there is a clause concerning HYBRID SEED CORN in the law, the labeling requirements are given a special heading coordinate with other groups of seeds. Where it comes under a regulation which may be changed any time by the enforcement officer, the requirements will be found under ENFORCEMENT.*

## ALABAMA

*Law Amended 1935 and Regulations Effective January 1, 1942*

### INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER

#### (A) Agricultural Seeds. Every lot of 5 pounds or more

1. Common name and variety.
2. Net weight.
3. Lot number (regulation).
4. Percentage of pure seed.
5. Percentage of weed seeds. Prohibit 2½%.
6. Percentage of other crop seed (regulation).
7. Percentage of inert matter (regulation).
8. Name and number per pound of each noxious weed seeds present singly or collectively in excess of:  
(a) One in 5 grams (see page 106, group A.)  
(b) One in 25 grams.  
(c) One in 100 grams.
9. Percentage of—  
(a) Germination.  
(b) Hard seeds. (Regulation.)  
(c) Month and year of test. Date of test not over 180 days prior to date of sale.
10. Where grown.
11. Full name and address of person responsible for label.

#### (B) Mixtures of Field Seeds. Every lot of 5 pounds or more (by regulation every lot)

1. That such seed is a mixture.
2. Net weight.
3. Lot number (regulation).
4. Name and percentage of each agricultural seed present in excess of 5% of total mixture.
5. Percentage of weed seeds. Prohibit 2½%.
6. Percentage of other crop (regulation).
7. Percentage of inert matter (regulation).
8. Name and number per pound of each noxious weed seeds present singly or collectively in excess of one seed in each 15 grams of the mixture.
9. For each agricultural seed present in excess of 5% give—  
(a) Percentage of germination.  
(b) Percentage of hard seeds. (Regulation.)  
(c) Month and year of test. Date of test not over 180 days prior to date of sale.
10. Where grown.
11. Full name and address of person responsible for label.

#### (C) Special Mixtures. Every lot of 8 ounces or more (by regulation every lot)

1. That such seed is a mixture.
2. Net weight.
3. Lot number (regulation).
4. Name and percentage (regulation) of each kind of agricultural seed present in proportion of 5% of the total mixture.
5. Percentage of weed seeds. Prohibit 2½%.
6. Percentage of crop seeds (regulation).
7. Percentage of inert matter.
8. Name and number per pound of each noxious weed seeds present singly or collectively in excess of one seed in 15 grams of the mixture.
9. For each agricultural seed present in excess of 5% give—  
(a) Percentage of germination.  
(b) Percentage of hard seeds (regulation).  
(c) Month and year of test. Date of test not over 180 days prior to date of sale.
10. Where grown.
11. Full name and address of person responsible for the label.

**(D) Vegetable Seeds included as agricultural seed; therefore each lot of 5 pounds or more is to be labeled as agricultural seed under "A." By regulation the Department of Agriculture asks for the following labeling:**

- (a) Packet seeds of less than 8 ounces shall bear a statement showing:
  - (1) Name of kind and variety of seed.
  - (2) For seed which germinates less than the standard last established by the Association of Official Seed Analysts.
    - (I) Percentage of germination exclusive of hard seeds.
    - (II) Percentage of hard seed if present.
    - (III) The calendar month and year the test was completed to determine such percentage.
    - (IV) The words "Below Standard."
  - (3) Name and address of person responsible for the information given.
- (b) Packet or package seed of 8 ounces and over and less than 5 pounds shall bear a statement showing:
  - (1) Name of kind and variety of seed.
  - (2) Percentage of germination, exclusive of hard seed.
  - (3) Percentage of hard seed if present.
  - (4) The calendar month and year the test was completed to determine such percentages.
  - (5) Name and address of party responsible for the information given.

### PROHIBITS THE SELLING OR GIVING AWAY FOR PLANTING PURPOSES SEED—

1. Containing 2½% weed seeds. Dallis and Carpet grass 5%.
2. Containing 200 primary and 500 secondary noxious weed seeds per pound.
3. Excessively low in germination.
4. With germination date over 180 days old.
5. Mislabeled seed whose variety is unadapted and unsuited for seeding purposes in Alabama.

### NOXIOUS WEEDS

(Regulations January 1, 1942)

Give name and number per pound on analysis tag.  
Seeds containing more than 200 primary and 500 secondary noxious weed seeds per pound shall not be offered for sale.

#### PRIMARY NOXIOUS

Bermuda grass (*Cynodon dactylon*)  
Dodders (*Cuscuta* spp.).  
Garlic, wild (*Allium vineale*).  
Johnson-grass (*Sorghum halepense*).  
Nutgrass (*Perennial Cyperus* spp.)

### SECONDARY NOXIOUS

Chess or Cheat (*Bromus secalinus* and *B. commutatus*).  
Corncockle (*Agrostemma githago*).  
Darnel grass (*Lolium temulentum*).  
Docks and Sheep Sorrel (*Rumex* spp.).  
Plantains (*Plantago* spp.).  
Quackgrass (*Agropyron repens*).  
Thistle, Canada (*Cirsium arvense*).

### LABORATORY

Federal—State seed laboratory.  
L. N. Allen, Associate Seed Technologist,  
U. S. Department of Agriculture.  
O. L. Justice, Chief seed analyst State of Alabama.  
*Tests*—Tests will be made for farmers between May 15th to August 15th and November 15th and December 15th. For services rendered beyond an equivalent of \$3.00, a fee will be charged.

### ENFORCEMENT

Under State Board of Agriculture.

Notice of shipment.

- (a) Notice of shipment of agricultural seeds shall be mailed within 24 hours of shipping date and shall bear:
  - (1) Name and address of shipper.
  - (2) Name and address of person to whom shipped.
  - (3) The amount.
  - (4) The kind and variety of seed.
  - (5) The lot numbers of seed.
- (b) Notice of the location of so called comminution boxes of packet seed shall state:
  - (1) Number of boxes.
  - (2) Number and size of packages in each.
  - (3) Their classification as to kinds of seed contained therein.
  - (4) Name and address of shipper and party to whom delivered.

### REGULATIONS

*Size of analysis tag* shall be 4¼ x 2¾ inches, or equivalent in square inches.

All information required on analysis tag shall be placed on one side of the label without intervening matter.

The date on the analysis tags should be the date the germination test was completed.

A complete analysis totaling 100% must be given. Blank spaces on a form tag or incomplete analysis are not permissible.

Abbreviation of names of the variety and kind of seed is not permissible.

Place of origin shall not be used as part of varietal name and kind of seed.

Modifying words or phrases shall not be used in connection with the variety, as "type," "for forage purposes," etc.

Brand names, designs, grades or pictures indicating a contradiction to any part of the analysis shall not be permitted.

Different varieties of the same kind of seed,

when in quantities less than 5%, will be considered other crop seed.

*Standard Weights*—Seed when packed for sale shall be in bags of standard weights and sizes as follows:

Ryegrass, Vetches, mixtures of Vetches or Peas, Austrian Peas, Cotton Seed and Cro-talaria—100 lbs. net.

Barley 96 and 120 pounds net.

Lespedeza—100 and 125 pounds net.

Crimson Clover, Cane and Sudan Grass—100 and 150 lbs. net.

Soybeans—120 and 150 pounds net.

Rye 112 and 140 pounds net.

Oats shall be 4 bushels of not less than 128 pounds.

*Records of receipt, sale and delivery* of all seed by any dealer shall be accessible for examination by authorized agent of the Department of Agriculture for a period of 3 years. Said records must be available to inspectors within 10 days after delivery of seeds.

*Trucks or other motor conveyors* transporting seed over the highways shall have available for examination a bill of lading, waybill, or delivery receipt showing (1) the name of the shipper or party from whom purchased; (2) the name and address of the party to whom seeds are to be delivered; (3) the kind and amount of each separate kind of seed and (4) the name of the truck driver and truck line making the delivery.

*Express, mail and freight* including truck deliveries to consumers of seed shall also be subject to provisions and rules and regulations pertaining to the enforcement of the Seed Law.

*New analysis tag* bearing the name of the vendor or other party responsible shall be placed on seed after the original test date becomes 180 days old.

*Seeds treated with fungicides*, shall show on the label the words "Poison Treated" in not less than ¼ inch face red type.

*Minimum germination*. No agricultural seed except grasses, unscarified legumes, garden seed listed in The Standards for Germination and seed released by the U. S. customs shall be offered for sale if the germination is below 60%.

Seed labeled or sold as "Certified," "Registered" or "Pedigreed" must have been certified or registered and inspected by an officially authorized agency and cannot be sold in Alabama unless the party selling shall have registered with the Alabama Department of Agriculture Seed Laboratory the lot number, variety and kind, name and address of the grower, and the history of the seed.

*Mixed varieties of Oats* shall not be sold for planting purposes in this state.

*False wild oats* will be considered weeds.

*Only the analysis tag and a tag* showing that the seeds have been treated with poison will be allowed, and both must be attached by the same fastener.

## ARIZONA

### Seed Law of 1941

### INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINERS

**(A) Agricultural Seeds (Unmixed). Every lot.**

1. Name of—
  - (a) Kind or.
  - (b) Kind and variety.
2. Lot number or other lot identification.
3. Percentage of purity.
4. Percentage of inert matter.
5. Percentage of weed seeds.
6. Percentage of other agricultural seed.
7. Percentage of—
  - (a) Germination, exclusive of hard seed.
  - (b) Hard seed.
  - (c) Month and year test was completed. The test shall have been completed within a nine month period exclusive of the month in which the test was completed.
- Following (a) and (b) statement of "Total Germination and Hard Seed" may be given if desired.
8. Origin of alfalfa, red clover and field corn (except hybrid). If origin is unknown it must be so stated.
9. Name and address of dealer who labeled the seed, or who sells, offers or exposes said seed for sale.
10. Name and number of secondary noxious weed seeds per ounce in groups B1 and B2

and per pound in B3 and B4 when present singly or collectively in excess of

- (a) a. 1 seed in 5 grams (see page 106, group B).
- b. 1 seed in 10 grams.
- c. 1 seed in 25 grams.
- d. 1 seed in 100 grams.
- (b) Name and number per ounce of Bermuda grass (*Cynodon dactylon*) and Sour clover (*Melilotus indica*) when present in seeds of grassed or small seeded legumes.

**(B) Mixed Agricultural Seeds. Every lot.**

Same as unmixed agricultural seed except it shall be called "Mixed" or a "Mixture" and the information required under (A) 1, 3 and 7 shall be given for each kind of agricultural seed present in excess of 5% in the order of its predominance.

**(C) Vegetable Seeds. Every lot.**

1. Name of kind and variety.
2. Seed which germinates less than the standard last established by the state entomologist. (See page 102 for standards.)
  - (a) Percentage of germination exclusive of hard seed.
  - (b) Percentage of hard seed.
  - (c) Month and year test was completed. The test shall have been completed within a nine month period exclusive of the month in which the test was completed.

(d) The words "BELOW STANDARD" in not less than 8 point type.

3. Name and address of dealer who labeled seed, or who sells, offers or exposes said seed for sale.

### PROHIBITS FROM SALE

1. Unless the test for germination shall have been completed within a nine month period exclusive of the month in which the test was made.
2. If containing primary noxious weed seeds, subject to tolerances.

### NOXIOUS WEEDS

**PRIMARY NOXIOUS WEEDS.** prohibited if present subject to tolerances.

Nut grass—*Cyperus rotundus*, *C. esculentus*;  
Bindweed—*Convolvulus arvensis*; Russian knapweed—*Centaurea repens*; Canada thistle—*Cirsium arvense*; Leafy spurge—*Euphorbia esula*;  
Hoary cress—*Lepidium draba*, *L. repens*, *Hymenophyllum pubescens*; Horsenettle—*Solanum elaeagnifolium*, *S. carolinense*; Perennial sow thistle—*Sonchus arvensis*; Camels thorn—*Alhagi camelorum*; Johnson grass—*Sorghum halepense* (when it occurs in sudan grass and small seeded legumes).

### SECONDARY NOXIOUS WEEDS

Wild oats—*Avena fatua*; Wild mustard—*Brassica arvensis*, *B. nigra*, *B. juncea*; Tansy mustards—*Sisymbrium irio*, *S. sophia*, *S. altissimum*; Dodders—*Cuscuta* spp.; Ragweeds—*Franseria ten-*



uifolia, F. discolor, Ambrosia psilostachya; Poverty weed—Iva axillaris; Alkali mallow—Sida hederacea; Blue sunflower—Helianthus ciliaris; Squirrel tail grass—Hordeum jubatum; Wild barley—Hordeum murinum; Buckhorn plantain—Plantago lanceolata; Russian thistle—Salsola kali var. tenuifolia; Bur grass—Cenchrus pauciflorus; Puncture vine—Tribulus terrestris; Whorled milkweed—Osclepias galetoides; Johnson grass—Sorghum halepense (except as specified under Primary noxious weeds).

**"STOP SALE" ORDER.** The state entomologist shall have the power to issue and enforce a stop sale order to the owner or custodian of any agricultural or vegetable seed which is in violation of any provisions of this act, which order shall prohibit the further sale of the seed until proof is furnished that the law has been complied with. Before such order is issued or attached the owner or custodian shall be given an opportunity to comply with the law or to withdraw the seed from sale. The owner or custodian of seed that has been denied sale under a stop sale order shall have the right to appeal

from the order to the Superior court of the county in which the seed is found.

**SEIZURE.** Any lot of agricultural or vegetable seed not in compliance with the provisions of this act shall be subject to seizure upon the complaint of the state entomologist to the Superior court of the county in which the seed is located. If the court finds that the seed does not comply with the law it shall order the condemnation thereof, and the seed shall be denatured, processed, destroyed, relabeled, or otherwise disposed of as ordered by the court. Upon application of the owner or custodian of the seed, the court shall have power to permit the applicant to process or relabel the seed to bring it into conformity with the act.

Sugar beets are exempt from the various provisions requiring the percentage of germination.

**LICENSE.** Any dealer who sells, distributes, processes or mixes for the use of another, any agricultural or vegetable seed shall obtain a license, at a cost of fifty cents (50c) from the state entomologist. A dealer shall not be en-

titled to a license unless he has an established plant, warehouse or place of business. The license shall be renewed annually not later than July 1st, and the application for renewal shall be accompanied by a fee of fifty cents (50c). This provision shall not apply to a farmer growing or marketing his own seed, or to any individual who harvests the producer's crop and receives part of the crop as payment for services rendered in harvesting.

## SEED LABORATORY

Agronomy Dept., University of Arizona, Tucson, Ian A. Briggs, Associate Agronomist.

### FEES FOR TESTING

Not more than 5 samples shall be tested free of charge in any calendar year, nor more than 1 in any calendar month for an individual. Samples in excess of this number shall be tested upon payment of a minimum fee of seventy-five cents (75c) for either purity or germination and \$1.50 for both. Fees shall be proportionately higher when more than the usual amount of time is required.

## ARKANSAS

### Act of 1921 As Amended 1939 - Rules 67 and 68 - Regulations Form 101 and 102 Revised June 30, 1940

#### INFORMATION REQUIRED ON ARKANSAS PERMIT TAG

##### (A) Agricultural Seeds—Each Bag.\*

1. Kind of seed.
2. Lot number.
3. Percentage of pure seed.
4. Percentage of weed seed.
5. Names and numbers of noxious weed seeds present per pound or, if not present, a statement to that effect.
6. Percentage of:
  - (a) Germination exclusive of hard seed.
  - (b) Hard seed.
  - (c) Date of test. Made not more than 6 months previously.
7. Percentage of hard seeds if present.
8. State in which grown; if unknown, so state.
9. Seedsman's or vendor's name and address.

##### (B) Mixtures.\*

Mixtures of 2 or more kinds—percentage of purity of the predominant kind may be given and the other kinds be considered as impurities, or the percentage of the various kinds present may be shown with the germination of each (exclusive of hard seeds) and the percentage of hard seeds, if present, or if the germination (including hard seeds) of none of said seeds is below 85%, then only the germination of the mixture taken as a whole need be shown.

##### (C) Vegetable Seeds.

The State Plant Board is authorized to sample and test vegetable seeds and to publish the results should the seed be found adulterated, misbranded or of poor quality.

#### NOXIOUS WEEDS

Dodder—Cuscuta spp.; Buckhorn—Plantago lanceolata; Chess or Cheat—Bromus secalinus;

Red Rice; Nut grass—Cyperus rotundas; Darnel—Lolium temulentum; Johnson grass—Sorghum halepense; Corn cockle—Agrostemma githago; Bottle brush plantain—Plantago aristata; sorrels—Rumex acetosa and Rumex acetosella; Dock—Rumex crispus, R. obtusifolius and R. conglomeratus; Wild onion or garlic—Allium spp.; Morning glory—Ipomoea purpurea; Field bindweed—Convolvulus arvensis; Hedge bindweed—Convolvulus sepium.

#### PROHIBITS FROM SALE OR TRANSPORTATION—

FIELD SEEDS CONTAINING:

Field bindweed, wild onion and nut grass.

FIELD SEEDS OTHER THAN LESPEDEZA AND SUDAN GRASS CONTAINING:

5 Johnson grass per pound.

250 Dodder and cheat per pound.

2000 Noxious weed seeds per pound.

LESPEDEZA AND SUDAN GRASS CONTAINING:

25 Johnson grass per pound, if less, use special permit tag.

250 Cheat per pound.

500 Dodder per pound, if from 100 to 500, use special permit tag.

2000 Noxious weed seeds per pound.

#### SEED LABORATORY

Agricultural Building, Fayetteville, Arkansas.  
John E. Casey, Analyst.

#### ENFORCEMENT AND REGULATIONS

Enforcement under State Plant Board, War Memorial Building, Little Rock, Arkansas.  
Paul H. Millar, Chief Inspector.

Permit tags required on each bag of field seeds may be secured from the State Plant Board, War Memorial Building, Little Rock, Arkansas; tags 2 cents each; good until July 1 of following year; expired tags exchanged at ¼ cent each.

Special Permit Tags bearing the words "Excessive Noxious Weeds" in large type, secured from the Plant Board.

Annual application of \$1.00 required except from those who use less than 20 permit tags and growers of Arkansas certified seed. Permit tags may be cancelled for failure to comply with the regulations.

**Cotton seed.** To sell cotton seed in Arkansas must file with the application for permit, a satisfactory certificate of freedom from communicable diseases signed by state quarantine officer of state in which seed was grown.

**Vetch seed** must have attached to each bag, in addition to analysis and permit tag, a state or federal certificate, attached by official seal, to seal the mouth of the bag, showing that the bag has been satisfactorily fumigated or that the seed was grown in a state or county free from vetch weevil.

**Hybrid Corn.** Permits to sell hybrid corn will be granted:

- (1) To breeder who has been officially recognized in his respective state.
- (2) On strains which have been found adapted to Arkansas. Breeder's permit tag must be attached to each container.

**Sorghum seed** for syrup purposes and **Abruzzi rye** is prohibited unless permission has been obtained from the Plant Board based on proof of truthness to name.

**Use of words "Certified" or "Registered"** limited to seed certified or registered by the duly authorized officer of the state of origin.

**If Soybeans and small grains** are sold for other than planting purposes this must be indicated on the bag or tag.

\*The information required by the Federal Seed Act, if given in toto, may be substituted for the information in (A) and (B).

## CALIFORNIA

### Agricultural Code Amended 1939

#### INFORMATION REQUIRED ON ANALYSIS TAGS.

(In not less than 7 point type or written in ink.)

##### (A) Agricultural Seeds. Every lot of 5 lbs. or more.

1. The commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. The name and number per pound of each primary noxious weed seed present.
5. The name of each kind of secondary noxious weed singly or collectively in excess of:
  - (a) One in 5 grams (See page 106, group A).
  - (b) One in 25 grams.
  - (c) One in 100 grams.
6. Percentage of—
  - (a) Germination, exclusive of hard seed. (Regulation.)
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test.
7. The name and address of the vendor.

##### (B) Mixtures of two kinds of seeds. Every lot of 5 pounds or more.

1. That such seed is a mixture.
2. Name and percentage of each kind of Ag-

ricultural seed present in excess of 5% by weight of the total in the order of its preponderance.

3. Percentage of weed seeds.
4. Name and number per pound of each primary noxious weed seed present.
5. Name of each secondary noxious weed present singly or collectively in excess of one seed in each 15 grams.
6. For each agricultural seed present in excess of 5% give—
  - (a) Percentage of germination, exclusive of hard seed. (Regulation.)
  - (b) Percentage of hard seed. (Regulation.)
  - (c) Month and year of test.
7. Name and address of vendor.

##### (C) Special Mixtures. Each lot of 8 ounces or more.

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in proportion of 5% or more of the total mixture in the order of its preponderance.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number per pound of each primary noxious weed seed present.
6. Name of each secondary noxious weed seed

present singly or collectively in excess of one seed in each 15 grams.

7. Name and address of the vendor.

##### (D) Vegetable Seed—Law does not include flower, sugar beet, and garden vegetable seed.

#### NOXIOUS WEEDS

##### PRIMARY NOXIOUS WEEDS

Blueweed, Texas—Helianthus ciliaris  
Camel's thorn—Alhagi camelorum  
Canada thistle—Cirsium arvense  
Cress, Austrian field—Roripa austriaca  
Cress, Hoary—Lepidium draba, including Lepidium repens, Hymenophyllum pubescens  
Cress, Perennial pepper—Lepidium latifolium  
Gaura, Scarlet—Gaura coccinea  
Gaura, Wavy leaved—Gaura sinuata  
Horsenettle, Carolina—Solanum carolinense  
Horsenettle, White—Solanum elaeagnifolium  
Knapweed, Russian—Centaurea repens  
Knapweed—Hypericum perforatum  
Nutsedges—Cyperus spp., including Cyperus esculentus, Cyperus rotundus  
Quackgrass—Agropyron repens  
Sowthistle, Creeping or Perennial—Sonchus arvensis  
Surge, Leafy—Euphorbia esula

## SECONDARY NOXIOUS WEEDS

Bassia, Fivehook—*Bassia hyssopifolia*  
 Bindweed or Wild morning glory—*Convolvulus arvensis*  
 Crabgrass—*Digitaria sanguinalis*  
 Crabgrass, Smooth—*Digitaria ischaemum*  
 Dodder, Clover—*Cuscuta epithymum*  
 Dodder, Field—*Cuscuta pentagona*  
 Dodder, Flax—*Cuscuta epilinum*  
 Dodder, Large-seeded—*Cuscuta indecora*  
 Dodder, Small-seeded—*Cuscuta planiflora*  
 Dogbane—*Apocynum cannabinum*  
 Johnson Grass—*Holcus halepensis*  
 Mallow, White or Alkali—*Sida hederacea*  
 Nightshade, Black—*Solanum nigrum*  
 including *Solanum douglasii*—(Perennial)  
 Poverty weed—*Iva axillaris*  
 Poverty weed, Franseria—*Franseria tenuifolia*  
 Puncture vine—*Tribulus terrestris*  
 Ragweed, Western—*Ambrosia psilostachya*  
 Red rice—*Oryza sativa*-var.  
 Sandbur—*Cenchrus pauciflorus*  
 Thistle, Iberian—*Centaurea iberica*  
 Thistle, Italian—*Carduus pycnocephalus*  
 Thistle, Purple star—*Centaurea calcitrapa*  
 Thistle, Russian—*Salsola kali*  
 Thistle, Yellow star—*Centaurea solstitialis*

## LABORATORY AND TESTS

Federal—State Seed Laboratory. State Office Building, Sacramento.  
 Leatha D. Bunting, Analyst, U. S. Dept. of Agriculture.  
 Free tests—Four free tests or one special mix-

ture will be made during the calendar year for any firm or individual.

Charges:

(a) For purity tests.

1. Alfalfa, cereals, clovers, cotton, cowpeas, fescues, field peas, flax, flower, lolium, millets, mixtures of only 2 kinds of seeds, mustards, phalaris, rape, rice, sorghum, soy beans, sugar beets, timothy, vegetable and vetches .....\$1.50
2. Agropyrons, Bermuda grass, brome grass, crested dogs tail, meadow foxtail, sudan grass, sweet vernal, and tall meadow oat grass .....\$2.00
3. Bent grasses, Dallis grass, Ky. bluegrass, and other Poa spp., orchard grass, redtop, and Rhodes grass .....\$3.00
4. Special mixtures .....\$5.00

(b) For Germination Tests.

1. All seeds listed under (1) above (except sugar beet) and (2) also Orchard grass, red top, and Rhodes grass.....\$.75
2. Bent grasses, Dallis grass, Ky. bluegrass, and other Poa spp., and sugar beet (sprout test).....\$1.50
- (c) Examination for weed seeds.....\$1.00
- (d) Identification .....\$.50
- (e) Official sampling by request. A charge of \$1.00, plus traveling expenses of inspector and regular charges for test or tests requested.

(f) Any seed not listed will be charged fee in appropriate class above.

## ENFORCEMENT

State Dept. of Agriculture, Bureau of Field Crops, L. M. Jeffers, Chief.

## REGULATIONS

- (1) Hard Seed—It is not permissible to include the hard seed as a part of the germination percentage. The percentage of hard seeds may be stated separately.
- (2) Label statements shall be in not less than 7 point type or written in ink.
- (3) Common name not sufficient for:
  - (a) Mustards used as cover crops. Both common name and specific name are required.
  - (b) Ryegrass—The common name origin shall be given.
  - (c) "Vetch" not sufficient, give variety name also.
- (4) Mixtures and special mixtures. Agricultural seeds shall be named on the label in order of their preponderance in the mixture. If a component is less than 5% of a special mixture its name must not be included unless accompanied by the actual percentage. Naming a special mixture after one of its component parts is not permissible unless the percentage of pure seed of the kind named be stated on the label

## CONNECTICUT

### Act of 1937

## INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER

### (A) Agricultural Seeds—Each lot.

1. Name of seed.
2. Percentage of purity.
3. Percentage of weed seeds.
4. Name and number per ounce of noxious weeds present singly or collectively in excess of:

- (a) 1 seed in each 5 grams. (See page 106, group A.)
- (b) 1 seed in each 25 grams.
- (c) 1 seed in each 100 grams.
5. Percentage of germination together with month and year of test.
6. Full name and address of vendor.

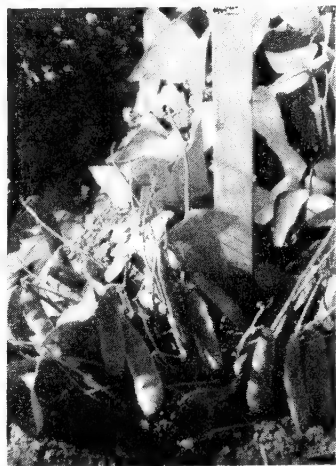
### (B) Mixtures of Agricultural seeds of not more than 2 kinds of seeds.

1. That such seed is a mixture.

2. Name and approximate percentage by weight of each kind of Agricultural seed present in excess of 5% of the total mixture.
3. Percentage of weed seeds.
4. Name and number per ounce of each noxious weed present singly or collectively in excess of one seed in each 15 grams.
5. Percentage of germination of each Agricultural seed present in excess of 5% of

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HAVE YOU LISTED YOUR SEED BEAN REQUIREMENTS FOR **1947?**  
**OF COURSE YOU HAVEN'T!**



LIMA BEANS

But WE are preparing for them now just as we prepared for your present needs years ago. Superior strains are under constant development in our breeding work. McCrea QUALITY is the product of years of this careful and exacting effort.

Wholesalers everywhere know that in the future, as in the past, they can always rely on . . .

# McCREA



POLE BEANS



**McCREA SEED COMPANY, INC.** SANTA BARBARA CALIFORNIA

# QUALITY SEEDS

## Growers

Wisconsin Seed Barley

Certified Seed Corn

Hybrid Seed Corn

## Distributors

Northern Grown Clovers

Hardy Alfalfas

Reed Canary Grass

Canadian Bromus

CAR LOTS OR LESS

WE SOLICIT YOUR INQUIRIES

**L. L. OLDS**  
**Seed Company**  
**MADISON WISCONSIN**

## WHOLESALE GROWERS OF GARDEN SEED

BEET

CARROT

CELERY

LETTUCE

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SALSIFY

Growers of Private Stocks.  
Correspondence Solicited.

**Braslan Seed Growers**  
**Company, Inc.**

San Jose, Calif.

Cable Address "BRASLAN"

the total mixture, together with month and year tested.

6. Full name and address of vendor.

### (C) Special Mixtures.

1. That such seed is a mixture.
2. Name and percentage by weight of each kind of seed present in the mixture.
3. Percentage by weight of weed seeds.
4. Percentage by weight of inert matter.
5. Name and number per ounce of each noxious weed, singly or collectively in excess of one seed in 15 grams.
6. Full name and address of vendor.

### (D) Vegetable seeds. Each separate container.

1. The kind and variety of seed.
2. Percentage of germination together with year tested.
3. Name and address of packetor or vendor.

### NOXIOUS WEEDS

Quack grass—*Agropyron repens*; dodder—*Cuscuta* spp.; Canada thistle—*Cirsium arvense*;

plantain—*Plantago* spp. (includes buckhorn); hawkweed—*Hieracium* spp.; curled dock—*Rumex crispus*; wild mustard—*Brassica arvensis* and other *Brassica* species.

### SEED LABORATORY

Conn. Agricultural Experiment Station, New Haven.

E. M. Stoddard, Analyst in Charge.

Tests—Any citizen of Conn. may send for test a maximum of 5 germination tests or 1 purity test within a given calendar month. Samples for labeling purposes not accepted.

### ENFORCEMENT

is under the Commissioner of Agriculture, Olcott F. King, State Office Building, Hartford. Francis H. Adams—Chief Inspector.

Conn. Dept. of Agriculture has established 3 voluntary grades for lawn grass. The use of these grades is limited to Connecticut dealers, but is not obligatory on them.

## COLORADO

*As Amended In 1921, 1925, and 1929*

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### SEEDS

Kind ..... Variety .....  
Pure Seed % ..... Date of Test .....  
Germination % ..... Hard Seeds % .....  
Grown in ..... Locality (If in Colo.) .....  
Noxious Weeds: Name and Number per pound, in excess of 90 seeds per pound .....  
Name (Seller) .....  
Address .....

(A) Agricultural Seeds—5 pounds or more.

(B) Mixtures of Agricultural seeds as above in A.

(C) Vegetable Seeds—Law does not apply except to "Vine Seeds."\* Vine seeds—Label 5 pounds or more.

1. Name.
2. State or foreign country where grown, if in Colorado, the locality. Or plainly mark "unknown."
3. Cantaloupe seed saved from cull piles and melons left in field after shipping shall be plainly marked "cull seed."
4. Name and address of vendor.

\*"Vine Seeds"—includes all varieties of cucumbers, cantaloupes, muskmelons, honeydews, casabas, pumpkins, squashes, and watermelons.

### NOXIOUS WEEDS

Barley, wild, or squirrel-tail grass (*Hordeum jubatum*)  
Bindweed or wild morning-glory (*Convolvulus arvensis*)

Cheat (*Bromus secalinus*)  
Clover, hop (*Trifolium procumbens*)  
Cockle (*Saponaria vaccaria*, syn. *Vaccaria vaccaria*; and *Agrostemma githago*)  
Crabgrass (*Digitaria ischaemum*, *Digitaria sanguinalis*; syn. *Syntherisma ischaemum*, *Syntherisma sanguinalis*)  
Dodders (any variety) (*Cuscuta pentagona*, *C. indecora*, *C. planiora*, *C. epilinum*)  
Mustard, wild (any variety) (*Brassica* spp.)  
Oats, wild (*Avena fatua*)  
Plaintains (any variety) (*Plantago lanceolata*, *P. major*, *P. rugelii*)  
Poverty weeds (any variety) (*Iva axillaris*, *Franseria tomentosa*, *F. discolor*)  
Sowthistle (*Sonchus arvensis*)  
Thistle, Canada (*Cirsium arvense*)

### SEED LABORATORY

At Colorado Agricultural Experiment Station, Fort Collins, Colorado.  
Bruce J. Thornton, Assoc. Bot. in Charge.  
Helen Kroeger, Analyst.  
The per cent of hard seed may be specified on the label, but must not be added to the germination.

## DELAWARE

*Law of 1929*

### INFORMATION REQUIRED ON ANALYSIS TAG.

(A) Agricultural seeds. Every lot of 10 pounds or more.

1. Name.
2. Percentage of pure seed.
3. Name and number per ounce of each noxious weed seed present in excess of:  
(a) One in each 5 grams.

(See page 106, group A.)

- (b) One in 25 grams.
- (c) One in 100 grams.
4. Percentage of germination together with month and year tested.
5. Name and address of vendor.

(B) Mixtures exempt except noxious clause (See No. 3 above).

(C) Vegetable Seed not under the law except canning house peas which are listed as agricultural seeds.

NOXIOUS WEEDS

Quack grass—Agropyron repens; Canada thistle—Cirsium arvense; doddars—Cuscuta species; wild mustard—Brassica arvensis; wild oats—Avena fatua; orange hawkweed—Hieracium aurantiacum.  
Dodder in excess of 30 per ounce is prohibited in lespedeza.

STOP SALE AND SEIZURE  
The State Board of Agriculture may cause to be seized and held any lot of agricultural

seed or mixtures of the same found to violate any of the provisions of this Act until the law has been complied with or said seed violation otherwise legally disposed of.

SEED LABORATORY  
State Board of Agriculture, Dover.  
John L. Clough, Analyst.  
Purity and germination tests 25 cents each.

ENFORCEMENT  
State Board of Agriculture, Dover.

FLORIDA  
Law of 1941 and Regulations

INFORMATION REQUIRED ON  
ANALYSIS TAG OR CONTAINER

- (A) Agricultural Seeds (Unmixed). Every lot.
1. Commonly accepted name of:  
(a) Kind or  
(b) Kind and variety or  
(c) Kind and type.
  2. Lot number or other lot identification.
  3. Percentage of purity.
  4. Percentage of inert matter.
  5. Percentage of weed seeds. Prohibit if in excess of 3%, Carpet grass 5%.
  6. Percentage of other agricultural seed.
  7. Percentage of:  
(a) Germination exclusive of hard seed.  
(b) Hard seed.  
(c) Month and year of test. The test for germination shall have been completed within a 12 month period exclusive of the month in which it was completed.  
Following (a) and (b) "Total Germination and Hard Seed may be given if desired."
  8. Origin of alfalfa, red clover, and field corn, if unknown it must be so stated.
  9. Name and address of person who labeled seed, or who sells, offers, or exposes said seed for sale.
  10. Name and number of each kind of noxious weed seed per ounce in groups B1 and B2 and per pound in B3 and B4 when present singly or collectively in excess of:  
a. 1 seed in 5 grams. (See page 106, group B)  
b. 1 seed in 10 grams.  
c. 1 seed in 25 grams.  
d. 1 seed in 100 grams.

- (B) Mixed agricultural seed. Every lot.
- Same as for unmixed seed except that it must be called "Mixed" or a "Mixture" and the information required under items (A) 1, 3 and 7 shall be given for each agricultural seed component present in excess of 5%, in the order of its predominance.

- (C) Vegetable seeds. Every lot.
1. Name of kind and variety.
  2. For seed which germinates less than the standard last established by the Commissioner of Agriculture.  
(See page 102 for standards)  
(a) Percentage of germination, exclusive of hard seed.  
(b) Percentage of hard seed.  
(c) Month and year of test. The test shall have been completed within a 12 month period exclusive of the month in which the test was completed.  
(d) The words "BELOW STANDARD" in not less than 8-point type. (Provided no seed shall be sold which falls more than 20% below the established standard.)
  3. Name and address of the person who labeled seed, or who sells, offers, or exposes said seed for sale.

Prohibits the Sale, Offering or Exposing for Sale of:

1. Agricultural or vegetable seeds unless the test for germination shall have been completed within a 12 month period exclusive of the month in which test was completed.
2. Seed containing in excess of 500 noxious weeds per pound.
3. Seeds containing in excess of 3% of weeds, Carpet grass 5%.
4. Agricultural seed except grasses, unscarified legumes such as clovers, alfalfa, Alyce clover, crotonaria, chickpea, and kudzu, garden seed listed in The Standards for Germination, and seed released by the United States Customs, if the germination percentage is below 60%.
5. Seeds which fall 20% below the established germination standards.

NOXIOUS WEEDS

Garlic or wild onion (Allium vineale).  
Bermuda grass (Cynodon dactylon, except when sold as such).  
Quack grass (Agropyron repens).  
Dodder (Cuscuta species).  
Johnson grass (Sorghum halepense, except when sold as such).  
Nut grass (Cyperus rotundus).  
Canada thistle (Cirsium arvense).  
Corn cockle (Agrostemma githago).

"STOP SALE."  
"Stop Sale" notice or order may be issued and enforced by the Commissioner of Agriculture or his authorized agents to the owner or custodian of any lot of agricultural or vegetable seed which he finds or has good reason to believe is in violation of any of the provisions of this act which will prohibit further sale, barter or exchange of such seed until the Commissioner is satisfied the law has been complied with. After receiving confirmation that the seed does not comply with the act the owner or custodian shall have 15 days in which to comply with the law or withdraw the seed from sale.

SEIZURE OF SEED.  
If for a period of 15 days, after having received the "stop sale" notice, the owner or custodian of the seed has failed to comply with the law or to withdraw such seed from sale the Commissioner shall be authorized to seize and hold said lot of seed which shall, after the expiration of 15 days from the date of seizure, be destroyed or disposed of by the Commissioner in such manner as he shall by regulation prescribe.

SEED LABORATORY

State Seed Laboratory at Tallahassee.  
Miss Mildred V. Henry, seed analyst.  
Fees for tests for persons residing in Florida.  
Purity on:  
Clovers, lespedeza, beggarweed, and seed of similar size .....\$0.50  
Grasses similar to carpet, Dallis, red top and Bahia .....\$1.00  
Mixtures, such as lawn grass mixtures.....\$2.00  
Germination of any sample.....\$0.25  
Fees for tests for persons not residing in Florida:  
The fees shall be the same as those charged by Commercial analysts. For example:  
Oats .....\$1.50  
Rye, wheat, and similar grains.....\$1.00  
Grasses .....\$3.00  
Mixtures .....\$3.00

ENFORCEMENT

Commissioner of Agriculture, Nathan Mayo.  
Department of Agriculture, Tallahassee.  
Supervising Inspector, Phil S. Taylor.

Registration and license fees.

- (A) Every person, before selling, offering or exposing for sale any agricultural or vegetable seeds, or mixtures thereof, other than packaged seed, shall
1. Register with the Commissioner as a seed dealer.
  2. Give number and location of each place of business at which such seed is sold, offered or exposed for sale.
  3. Pay the Commissioner  
(a) \$1.00 if retailer, for each place of business.  
(b) \$25.00 if wholesaler, or wholesaler and retailer for each place of business where seeds are sold, offered or exposed for sale at wholesale, or at wholesale and retail, and \$1.00 for each place of business at which seeds are sold, offered or exposed for sale at retail only.
  4. Such registrations shall be renewed July 1st of each year at the same fee.
- (B) When vegetable seeds are sold or consigned to or placed with any person for sale in packets or packages of 8 ounces or less, each box or container of not exceeding 72 dozen such packets or packages of vege-



AMERICA'S SAFEST GROWERS

California and Colorado

SEEDS

Cucumber Cantaloupe  
Watermelon Squash  
Pumpkin, etc.

Lawrence Robinson & Sons

Modesto California  
Rocky Ford Colorado

GENUINE

ALFALFA  
ARIZONA  
GROWN

Known for Its  
HIGH PURITY and  
GERMINATION  
BERMUDA  
GRASS SEED  
a Specialty

Write for Samples & Prices

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YUMA, ARIZONA

# COMSTOCK FERRE & CO.

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**GROWERS  
and  
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GARDEN SEED  
FLOWER SEED  
PEAS AND BEANS  
ONION SEED  
ONION SETS  
SWEET CORN

**Wethersfield, Conn.**

*Growers*

of

CROTALARIA-CHUFAS  
CATTAIL MILLET  
SEED CORN and  
SOY BEANS

OTOOTANS - PALMETTO  
CLEMSON - AVOYELLES  
MACOUPIN - MAMLOXI

All Seed Graded and A-1 Quality

We Will Appreciate Your  
Inquiries for Sample and Prices

Wholesale Only

**Riemers' Farms**  
ELBERTA ALABAMA

table seeds, or vegetable and flower seeds, shall have attached thereto an inspection fee stamp furnished and secured from the Commissioner, for which a fee of 25c shall be paid.

## REGULATIONS

- (a) Analysis tags for agricultural seed shall be not less than a No. 5 standard tag—size  $4\frac{3}{4} \times 2\frac{3}{8}$  inches.
- (b) All information required on the analysis tag shall be placed on one side of the tag without intervening matter, and no other information shall be placed on this side with the analysis. The analysis shall be complete and total 100%.
- (c) Abbreviation of the name of the variety and the kind of seed on the analysis tag is prohibited.
- (d) Modifying words or phrases shall not be used in connection with the variety (as for example "type," "for forage purposes," etc.), nor shall group names be used as variety names.
- (e) Seed dealers carrying in stock grains or other seeds, which are intended for feeding purposes and not for planting, shall affix to each bag, parcel, or container a tag stating
  1. Kind and net weight of the grain.
  2. In plain, legible type the words: "The grain in this container is intended for feeding purposes only and will not be sold for seed."
- (f) New analysis tags bearing the name of the vendor, or other party responsible, shall be placed on the seed after the original test date becomes twelve months old.
- (g) Records of receipt, sale and delivery of all seed by any dealer shall be kept readily accessible for examination by an authorized agent of the Department of Agriculture, and such records shall be on hand not later than 10 days after receipt of such seed, and be kept for a period of three years.
- (h) Trucks and other motor conveyances transporting seed for sale, or to be sold to consumers on the public highways of Florida, shall have available for examination at any time a bill of lading, waybill, or a delivery receipt showing
  1. Name of shipper or party from whom purchased.
  2. If for delivery, the name and address of the party to whom the seeds

are to be delivered.

3. The kind and amount of each separate kind of seed.
4. Name of the truck driver and truck line making delivery.
- (i) Seed treated with fungicides, or any substance likely to be poisonous to human beings or animals, shall show on the label the words "Poison Treated" in not less than  $\frac{1}{4}$  inch face red type, and it shall be unlawful to sell such seed for use or for processing either for human or animal consumption.
- (j) Seeds containing more than 200 noxious weed seeds per pound shall be labeled in red ink in not less than 12 point type "EXCESSIVE NOXIOUS WEEDS."
- (k) Worthless seed (seed which falls below the limits fixed by the Florida Seed Law and the regulations governing it) may not be given away or sold for planting purposes.
- (l) Oats consisting of mixed varieties shall not be sold for planting purposes.
- (m) Different varieties of the same kind of seed, when in quantities of less than 5%, will be considered as other crop seed.
- (n) Brand names, designs, grades, or pictures indicating a condition or quality, other than that required on the analysis tag, or indicating contradictions to any part of the analysis, shall not be permitted.
- (o) No agricultural seed, except grasses, unscarified legumes such as clovers, alfalfa, Alyce clover, crotalaria, chickpea, and kudzu, garden seed listed in The Standards for Germination, and seed released by the United States Customs shall be offered for sale if the germination percentage is below sixty.
- (p) Tolerances shall be recognized between the percentages or rate of occurrence found by analysis, test, or examination, in the administration of the act as referred to in Section 201.59 of the Federal Seed Act.
- (q) The use of the disclaimer or non-warranty clause in any invoice advertising, labeling written, printed or graphic matter pertaining to any seed shall not constitute a defence, or be used as a defence in any way in any prosecution or in any proceeding for confiscation of seeds brought under the provisions of this act, or the rules and regulations made and promulgated thereunder.

## GEORGIA Law 1941

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER.

#### (A) Agricultural seeds. Every lot of 5 pounds or more.

- (1) Commonly accepted name of:
  - a. Kind or variety, and
  - b. Kind and type.
- (2) Lot number or other lot identification.
- (3) Percentage of pure seed.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds. Prohibited if in excess of  $2\frac{1}{2}\%$ . Dallis grass and carpet grass 5%.
- (6) Percentage of other agricultural seeds.
- (7) Origin, if unknown it must be so stated.
- (8) Name and address of person who labeled the seed, or who sells, offers or exposes said seed for sale.
- (10) Name and number per pound of primary and secondary noxious weed seeds present singly or collectively in excess of:
  - (a) One in 5 grams (see p. 106, Group B)
  - (b) One in 10 grams.
  - (c) One in 25 grams.
  - (d) One in 100 grams.
- (11) Percentage of: (Regulation)
  - a. Germination
  - b. Hard seeds
  - c. Date of test

#### (B) Mixed Agricultural Seeds. Every lot of 5 pounds or more.

Same as for unmixed seeds, except it must be called "Mixed" or a "Mixture" and the information required under items (A) 1 and 3 shall be given for each agricultural seed present in excess of 5%, in the order of its predominance.

#### (C) Hybrid seed corn. Every lot of 5 pounds or more.

In addition to the information required under section (A) the following additional information shall be given:

- (1) Name and address of the party who grew the seed, or is responsible for the distribution.

- (2) Variety and kind of foundation seed stock used in its production.
- (3) Name or designation under which each lot will be sold.
- (4) Length of growing season in days, from germination to maturity.

#### (D) Vegetable seeds. Every lot of 5 pounds or more.

- (1) Name of kind and variety.
- (2) For seed which germinates less than the standard last established by the Commissioner of Agriculture. (See page 102 for standards.)
  - a. Percentage of germination, exclusive of hard seeds.
  - b. Percentage of hard seeds.
  - c. Month and year of test. Test shall have been completed within a nine month period exclusive of the month in which the test was completed.
  - d. Marked "BELOW STANDARD" in not less than 8-point type.
- (3) State where grown.
- (4) Name and address of person who labeled the seed, or who sells, offers or exposes said seed for sale.
- (5) Seed which falls more than 20% below standard cannot be sold.

#### (E) Certain Tree seeds. Every lot of 5 pounds or more.

(Long leaf pine—Pinus palustris; slash pine P. caribaea; loblolly pine—P. taeda; short leaf pine—P. echinata).

- (1) Technical generic and specific names in official use by the United States Department of Agriculture.
- (2) State and county of origin.
- (3) Date of collection—month and year.
- (4) Name of collector.
- (5) Percentage of purity of whole, normal seeds, with or without wings, of the species concerned, if based on seeds with wings attached it shall be so stated.
- (5) Percentage of other species if present.
- (7) Percentage of germination. Test shall have been completed within a nine month period, exclusive of the month in which it was completed.



**Prohibits the sale, offering or exposing for sale of any agricultural, vegetable or certain tree seeds—**

- (1) Unless the test for germination shall have been completed within a nine month period, exclusive of the month in which it was completed.
- (2) Containing primary noxious weed seeds. Subject to tolerances.
- (3) That have been treated with poisonous materials unless the labels are marked with  $\frac{3}{4}$  inch red letters "POISON TREATED."
- (4) Containing over 100 primary noxious weed seeds per pound.
- (5) Containing over 200 secondary noxious weed seeds per pound.

**NOXIOUS WEEDS.**

**Primary noxious weeds.**

**PROHIBITED SUBJECT TO TOLERANCES**

Bindweed—*Convolvulus* spp.; Johnson grass—*Sorghum halepensis*; Wild onion or garlic—*Allium vineale*; nut grass—*Cyperus rotundus*; quack grass—*Agropyron repens*; Bermuda grass—*Cynodon dactylon*; Canada thistle—*Cirsium arvense*; dodder—*Cuscuta* spp.

**Secondary noxious weeds.**

Corn cockle—*Agrostemma githago*; coffee weed—*Circhorium intybus*; darnel—*Lolium temulentum*; cheat or chess—*Bromus* spp.; sand spur—*Cenchrus pauciflorus*; rough pig weed—*Amaranthus retroflexus*; plantains—*Plantago* spp.; wild mustard—*Brassica* spp.; bitter weed—*Helenium tenuifolium*.

FARMERS are exempt from complying with the provisions of this act unless they are selling their seed outside the county where grown, then each container must be tagged, giving:

- (1) Name of grower.
- (2) Name of kind and variety.
- (3) Calendar year harvested.
- (4) If containing undesirable or noxious weeds it must be so stated. If a dealer purchases seed from a farmer in his trade territory he may sell it, complying with the same provisions as required of the farmer.

**SHIPMENTS**

Every lot of seed covered by this act being

shipped shall be accompanied by a bill of lading or other evidence giving:

- (1) Name and address of consignor and consignee.
- (2) Class and amount of each being transported.

"STOP SALE" orders shall be issued and enforced by the Commissioner of Agriculture to the owner or custodian of any lot of agricultural, vegetable or certain tree seeds which are in violation of any provisions of this act which shall prohibit the further sale of such seeds until that officer has evidence the law has been complied with. Any lot of seed, the sale of which has been prohibited as provided in this paragraph, the owner or custodian shall have the right to appeal from such order to a court of competent jurisdiction, where such seed are found, praying for a judgment as to the justification of said order, and for the discharge of such seed from the order in accordance with the findings of the court.

**SEIZURE.** Any lot of agricultural, vegetable or certain tree seeds not in compliance with the provisions of this act shall be subject to seizure on complaint of the Commissioner of Agriculture to a court of competent jurisdiction in the area in which the seed is located. If the court finds the seed to be in such violation of the act and orders its condemnation it shall be, denatured, processed, destroyed, relabeled or otherwise disposed of in compliance with the laws of the state; Provided, in no instance shall such disposition be ordered by the court without first having given the claimant an opportunity to apply to the court for the release of said seed or permission to process or relabel it to bring it into compliance with the act.

**HYBRID SEED CORN**—the term means the first generation seed of a cross produced by controlling the pollination, and by combining two, three, or four inbred lines, or by combining one inbred line or a single cross with an open pollinated variety. Hybrid designations shall be treated as variety names.

**SEED LABORATORY**

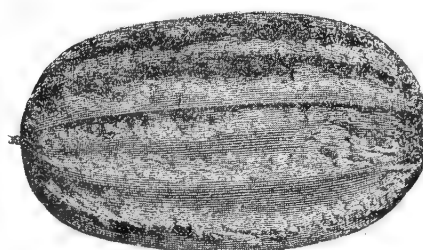
Department of Agriculture, Atlanta.  
Ercelle Fuller, analyst in charge.

**ENFORCEMENT**

Department of Agriculture, Atlanta, Georgia.  
Tom Linder, Commissioner of Agriculture.  
C. Reynolds Clark, State Chemist.

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Our Stocks Are Inbred  
43 YEARS OF EXPERIENCE

**WATERMELON**  
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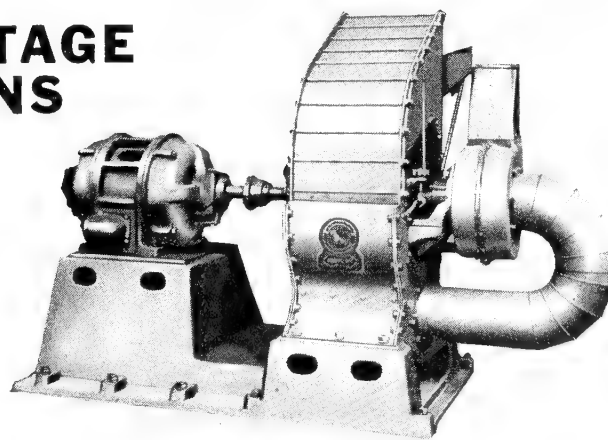
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# "JAY BEE"

World's Standard Grinder for Capacity, Economy, Durability



**G**REATER efficiency, more speed, bigger capacities, lower operating cost, to beat competition—that's the "JAY BEE" all-steel hammer mill.

For nearly a quarter century—the Bossert made "JAY BEE" mill outlasts 'em all, outgrinds 'em all. Heavy boiler-plate and alloy-steel construction makes the "JAY BEE" almost unbreakable. It grinds more feed at less cost per ton than any other hammer mill made.

From the finest whole wheat flour and corn meal, to every grain and roughage grown, the "JAY BEE" grinds to any degree of fineness, always cool, and uniform. It costs less to operate and maintain, and is

practically free from repairs over a long period of years. Sizes and styles from 12 H.P. to 200 H.P. with belt, V-belt, and direct-connected drives.

## MAINTAIN SERVICE CONTACT WITH FARMERS

Seedsmen and custom millers have added greatly to their income. They fortify their local business with the "JAY BEE" Portable. They make any kind of feed from the farmer's crops right on his farm. This brings in new business, and helps hold and increase their sales of mixed feeds, concentrates, minerals, and molasses.

Investigate the profit possibilities at once. Write for descriptive literature, prices, terms, etc.

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JOHN J. WOODS & SONS, JAY BEE SALES CO., KANSAS CITY, MO.

J. B. Sedberry Co., 2608 So. Wells St., Chicago, Ill.—A. E. Thompson Co., 718 Washington Ave., N., Minneapolis, Minn.—T. G. Holland, 474 Fairfax Road, Drexel Hill, Pa.—Jay Bee of Texas, 705 Ross Ave., Dallas, Texas—Jay Bee Sales Co., 395 Broadway, New York—Jackson, Tenn.—Moultrie, Ga.—P. O. Box 853, Winston-Salem, N. C.—436 Starks Bldg., Louisville, Kentucky—The Lamiell Co., Greenwich, Ohio.

# SEEDS

FROM

*Idaho*

★ LEWISTON

STRAINS FROM  
SINGLE PLANTS

**PEAS AND BEANS**  
OF *highest* QUALITY

EXPERTLY GROWN  
CAREFULLY ROGUED  
PROPERLY PROCESSED

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**MARK MEANS CO.**  
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**Idaho  
Grown  
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- ALFALFA
- RED CLOVER
- ALSIKE
- SWEET CORN
- FIELD CORN
- ONION SEED
- LETTUCE SEED
- LADINO WHITE CLOVER

**EDGAR L. OAKES  
& CO.**  
CALDWELL IDAHO

## IDAHO

*Law of 1931, Amended 1939*

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER.

#### (A) Agricultural Seeds. Every Lot.

1. Name of seed.
2. Percentage of pure seed.
3. Name of noxious weeds present.
4. Germination of non-leguminous plants, together with the date of test.
5. Year grown.
6. Where grown.
7. Name and address of vendor.

#### (B) Mixtures. Every Lot.

1. That such seed is a mixture.
2. Name of each kind present in proportions of 5% or more.
3. Name and number of noxious weeds.
4. Percentage of inert matter.
5. Percentage of germination of non-leguminous plants together with date of test.

#### (C) Vegetable Seed.

Classed as agricultural seeds; label as under (A) above.

#### (D) Flower Seeds.

Classed as agricultural seeds; label as under (A) above.

### NOXIOUS WEEDS

Prohibit any: Quack grass—*Agropyron repens*; Canada thistle—*Carduus arvensis*; buckhorn plantain—*Plantago lanceolata*; per-

ennial sow thistle—*Sonchus arvensis*; hoary cress—*Lepidium draba*, *Lepidium repens*, *Hy-menophyssa pubescens*; wild morning-glory—*Convolvulus arvensis* and *Convolvulus sepium*; spurge—*Euphorbia corollata*, *Euphorbia esula*, *Euphorbia cyparissias*; yellow toad flax—*Linaria vulgaris*; perennial ground cherry—*Physalis subglabrata*; Russian knapweed—*Centaurea picris*.  
Prohibited in greater proportion than one seed of any or all to 10,000 seeds of the agricultural seed being offered for sale.  
Wild mustard—*Brassica* spp.; wild oats—*Avena fatua*; dodder—*Cuscuta* spp.; corn cockle—*Agrostemma githago*; puncture vine—*Tribulus terrestris*; frenchweed—*Thlaspi arvense*.

### SEED LABORATORY AND TESTS

Seed Laboratory, College of Agriculture, Boise, Idaho.  
Mr. E. K. Chaffee, Seed Analyst.  
Fees—Purity tests, 25 cents; Germination tests, 25 cents.

### ENFORCEMENT

H. L. Spence, Jr., State Seed Commissioner, Agronomy, Extension Service, University of Idaho, Boise, Idaho.

### SCREENINGS

All screenings, removed during the process of cleaning field, flower or garden seed containing any seeds of noxious weeds shall be destroyed or devitalized before leaving the place where cleaning occurred.

## ILLINOIS

*Law of 1941*

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER.

#### (A) Agricultural Seeds. Every lot.

- (1) Commonly accepted name of:
  - a. Kind or,
  - b. Kind and variety or,
  - c. Kind and type.
- (2) Lot number or other lot identification.
- (3) Percentage of pure seed.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds. Prohibited if in excess of 2%.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination, exclusive of hard seed.
  - b. Hard seeds.
  - c. Month and year test was completed. The test for germination shall have been completed within a nine month period, exclusive of the month in which test was completed.

Following a. and b. the additional statement "Total germination and hard seed" may be given if desired.

- (8) Origin of alfalfa, red clover and field corn (except hybrid), if unknown it must be so stated.
- (9) Name and address of the person who labeled the seed, or who sells, offers or exposes said seed for sale.
- (10) Name and number of each kind of secondary noxious weeds, per ounce in groups B1 and B2 and per pound in B3 and B4, when present singly or collectively in excess of:
  - 1 in 5 grams. (See page 106, Group B)
  - 1 in 10 grams.
  - 1 in 25 grams.
  - 1 in 100 grams.

#### (B) Mixtures of Agricultural Seeds. Every lot.

Same as for unmixed agricultural seed, except that it must be called "Mixed" or a "Mixture" and the information required under items (A) 1, 3 and 7 shall be given for each component present in excess of 5% in the order of its predominance.

#### (C) Vegetable Seeds. Every lot.

- (1) Name of kind and variety.
- (2) For seed which germinates less than the standard last established by the Director of Agriculture. (See page 102 for standards.)
  - a. Percentage of germination, exclusive of hard seed.
  - b. Hard seeds.
  - c. Month and year test was completed. The test for germination shall have been completed within a 9 month period exclusive of the month in which the test was completed.
  - d. The word "BELOW STANDARD" in not less than 8-point type.
  - e. Name and address of the person who labeled the seed, or who sells, offers or exposes said seed for sale.

### Prohibits the sale, offering or exposing for sale any agricultural or vegetable seed—

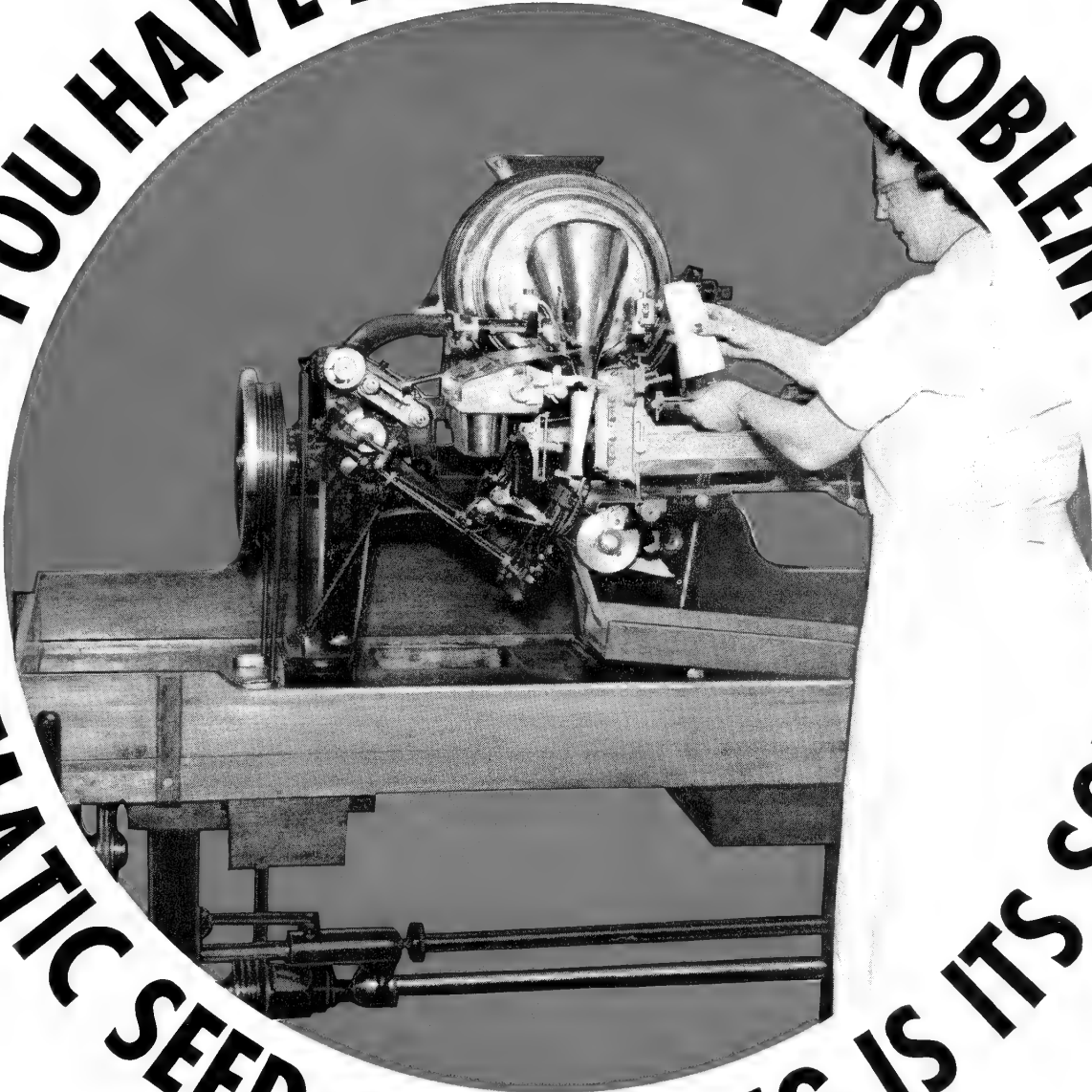
- (1) Unless the test for germination has been completed within a nine month period, exclusive of the month in which the test was completed.  
Agricultural Seed Only.
- (2) Agricultural seeds containing in excess of 2% weeds.
- (3) Agricultural seeds containing primary noxious weed seeds, singly or collectively, in excess of 1 in 50 grams of the seeds in group B1 and B2 and in excess of 1 in 150 grams of the seeds in group B3, and in excess of 1 in a pound of the seeds in group B4, page 83. (Vegetable seeds exempt.)
- (4) Agricultural seeds containing secondary noxious weed seeds, either singly or collectively, in greater proportion than 1 to 1,000 agricultural seeds.

### NOXIOUS WEEDS.

#### PRIMARY NOXIOUS WEEDS

PROHIBITS IF IN EXCESS OF 1 IN 50 GRAMS, 1 IN 150 GRAMS AND 1 IN A POUND.

★ YOU HAVE A DEFENSE PROBLEM ★  
 ★ AUTOMATIC SEED PACKETING IS ITS SOLUTION ★



**A**LREADY, perhaps, you are affected by a labor shortage and higher wages. If you don't protect your seed packeting costs, you must face competition unfavorable to profits. Prepare for an early and increased demand for seeds. More and more defense gardens will be planted. NOW, as never before, you need a

**BROWN**  
**AUTOMATIC**  
**SEED PACKET FILLING**  
**AND SEALING MACHINE**  
 — AND —  
**BROWN-made SEED PACKETS**

**L**ET one machine, one attendant and only a few square feet of floor space do the work of several experienced hand workers. Low machine leasing rates and favorable packet prices will protect you. Write NOW for particulars. The Brown Bag Filling Machine Company, Fitchburg, Mass.

**CUSTOMERS RETURN**  
*Year After Year*

for the Seed tha

**DEPENDABLE**

**QUALITY**

**85 Varieties  
Seed Corn**

**HYBRID CORN**

90-100-110-Day

**FIELD CORN**

**ENSILAGE CORN**

**SWEET CORN**

All Standard Varieties Open Pollinated Corn



*Your Best Insurance*

**The O & M SEED CO.,** Growers, Green Springs, Ohio

What yields better crops—O&M

BLE O & M

● A feeling of confidence goes with the planting. Thousands play safe by buying it every season. They know it has no equal.



## O&M Seed Oats

SWEDISH TYPE  
WHITE STAR  
COLUMBIA GRAY  
LENROC  
VICTORY

O & M Northern Grown Oats produce healthy, vigorous plants—heavy grain, thin shuck and stiff straw, 70 to 90 bu. per acre reported. No smut or weed seed. Cleaned over 4 mills. Should be sown  $\frac{1}{2}$  bu. per acre less than common seed.

●  
SEED BARLEY

●  
GARDEN SEED

●  
GRASS SEED

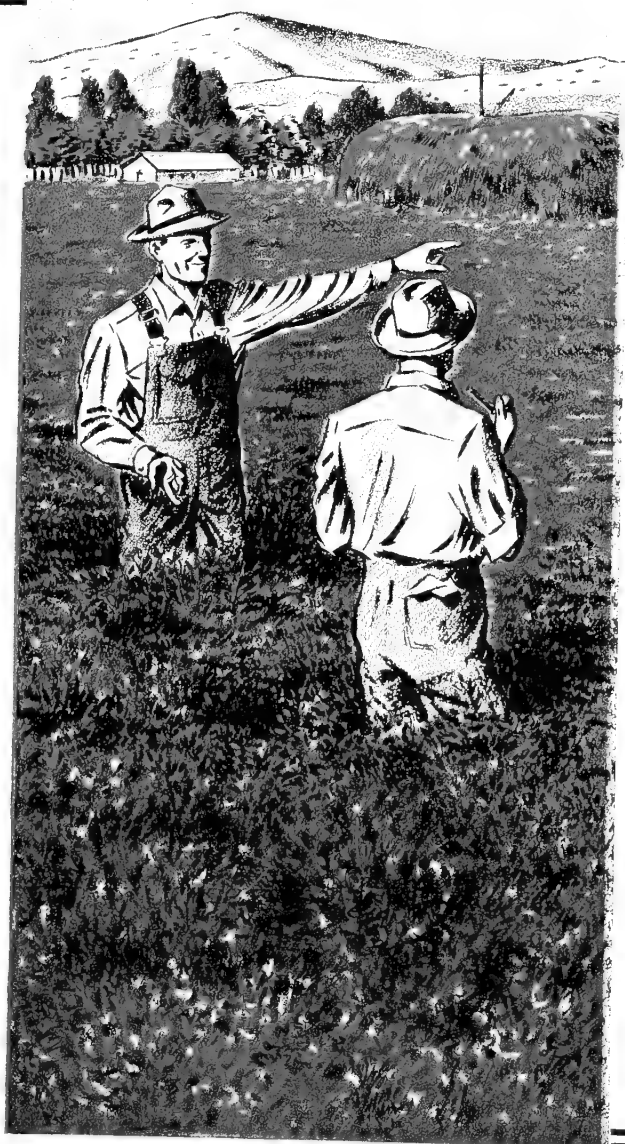
st Juice is O&M Seed

Write for Prices Car Lots or Less



This is the  
**ALFALFA  
SEED**  
that

- sells fast!*
- repeats often!*
- nets most profit!*



What's good for your customers is good profit for you. **BLACKFOOT** Brand Idaho Grimm Alfalfa Seed is grown to satisfy the farmer who buys from you . . . brings him back for other purchases.

Consistent, year after year advertising in farm papers has created a demand and acceptance for **BLACKFOOT** Brand as the best alfalfa seed on the market.

Rigid growing regulations and climate keep **BLACKFOOT** quality uniformly high . . . make it your buyers' most profitable alfalfa.

Sold in 30, 60, 150 pound, state certified bags. Order NOW from . . .

**IDAHO GRIMM**  
Alfalfa Seed Growers Association  
**BLACKFOOT, IDAHO**

Canada thistle—*Cirsium arvense*  
 Perennial sow thistle—*Sonchus arvensis*  
 Field bindweed—*Convolvulus arvensis*  
 Leafy spurge—*Euphorbia esula*  
 Russian knapweed—*Centurea picris*  
 Hoary cress—*Lepidium draba*.

## SECONDARY NOXIOUS WEEDS

PROHIBITS IF IN EXCESS OF 1 to 1,000  
 AGRICULTURAL SEEDS.

Curled dock—*Rumex crispus*  
 Wild garlic—*Allium* spp.  
 Dodders—*Cuscuta* spp.  
 Bullnettle—*Solanum carolinense*  
 Buckhorn—*Plantago lanceolata*  
 Quack grass—*Agropyron repens*  
 Wild carrot—*Daucus carota*  
 Wild Mustard—*Brassica* spp.  
 Johnson grass—*Sorghum halepense*  
 Ox-eye daisy—*Chrysanthemum leucanthemum*

## STOP SALE AND SEIZURE

The authorized agents of the Department of Agriculture shall seize or prohibit the sale of any lot of agricultural or vegetable seed being sold, offered or exposed for sale which appears to be in violation of this act or to fall below the statement on the label or tag. Said seed shall not be sold, offered or exposed for sale for seeding purposes until it is released by the Department of Agriculture, provided that the right to appeal to a court of competent jurisdiction to review any order, rule or regulation shall exist in all cases. Any seed, seized in accordance with the provisions of this act, found by a court of competent jurisdiction to be in violation of any of the provisions thereof may be disposed of by the Department of Agriculture.

- By sale for the purpose of recleaning.
- By delivery to the owner, provided he has appeared as claimant thereof and paid the court costs and fees and all other necessary expenses in connection with the seizure of the seed, and has executed and delivered a bond, with good and sufficient sureties, conditioned that the seed will not be

sold or disposed of contrary to any provisions of this act.  
 c. By destruction.

## LABORATORY AND ENFORCEMENT

State Department of Agriculture.  
 Charles H. Keltner, Superintendent of Division of Plant Industry, Springfield.

Tests—Residents permitted 5 free tests for both purity and germination.

Tests of clover, alfalfa, lespedeza, timothy, vetch, sudan grass, rape, and millet charges shall be 50 cents for purity and 50 cents for germination. Chaff grasses \$1.00 for purity, and \$1.00 for germination. Uncleaned red-top not permitted on free list purity and germination \$5.00.

## Regulations (December 17, 1940)

### Regulation I

Seed in storage, in bins or other containers in salesroom, storeroom or warehouse, unless otherwise labeled, shall be considered offered or exposed for sale for seeding purposes in Illinois and shall be subject to the provisions of the seed law.

### Regulation III

Agricultural seeds for seeding purposes stored in bulk or bins or tanks shall be labeled by attaching a tag or label to the bin at the entrance. Each portion of seeds sold from this bulk for seeding purposes shall be accompanied by an exact copy of the label attached to the container of the bulk lot.

### Regulation VIII

Mottled seed in White Blossom Sweet Clover.

When mottled seed is less than 5%, the percentage shall be shown on the label, but may be included in the percentage of purity.

When mottled seed is equal to or in excess of 5%, such a mixture shall be labeled "Sweet Clover" or "mixed Sweet Clover."

### Regulation IX

Hybrid Corn. Definition: "Hybrid Seed Corn is the seed of corn resulting from the first cross fertilization involving inbred lines of corn and/or their combinations, the inbred lines having been self-fertilized until they are reasonably pure."

Our Specialty

# REDTOP & TIMOTHY

Shippers in Car Lots,  
 Mixed Cars or Truck  
 Loads of

All Field Seeds  
 First Handed

**J. M. SCHULTZ SEED  
 COMPANY**  
 DIETERICH, ILLINOIS

## Largest Seed Corn Drying Storage Plant



Our new plant located at San Jose, Illinois (25 miles south of Peoria), has a drying capacity, normal season, of 145,000 bushels. Seed storage capacity 184,000 bushels. 64 drying bins holding from 385 bushels to 885 bushels each. Equipped with the newest and best machinery we can buy.

Thirty-four years' experience in producing high-yielding seed corn. 20 leading hybrids, mostly certified. We produce our own inbreds, single crosses and four-way crosses.

Flat grades \$3.25 to \$7.50 per bushel. Round grades, \$3.00, subject to dealers liberal discount.

Send for new catalog. Agents wanted: some good territory still open.

**KELLY SEED COMPANY**

PEORIA, ILLINOIS

SAN JOSE, ILLINOIS

Redtop



**Ging & Company**

FARINA  
 ILLINOIS

# GEO. KELLER & SONS

Quincy, Ill.

## K Brand Seeds

### Wholesale Dealers

- Red Clover
- Mammoth Clover
- Timothy
- Alsike
- Alfalfa
- Sweet Clover
- Lespedeza

# OSTBERG SEED CO.

7301 Woodlawn Avenue

Telephone Dorchester 0134

CHICAGO



Wholesalers of Imported  
and Domestic

## GRASS SEEDS

Blue Grass      Clovers  
Red Top      Rye Grass

Fancy Grasses  
Lawn Mixtures

To sell seed of corn labeled "Hybrid Corn" without giving proper and indisputable evidence that it complies with the above definition shall constitute a violation of the Illinois Seed Law.

#### Regulation X

**Certified and Registered Seed.** Such seed must have been produced and labeled in accordance with the procedures and in compliance with the rules and regulations of an officially recognized seed-certifying agency. The Illinois Crop Improvement Association is recognized as the certifying agency in Illinois.

#### Regulation XI

**Recleaned Seed.** Agricultural seed shall be considered recleaned if the total inert matter and weed seeds shall not exceed 20% of the sample in the case of Bluegrasses; 15% in case of Red Top, Bent Grasses, Orchard

Grasses and Brome Grass; and 5% in all other agricultural seeds.

#### Regulation XIV

**Canada Thistle, European Bindweed and Perennial Sow Thistle.** Inasmuch as the above named weeds are prohibited in greater numbers than 1 to 50 grams, it is required that the presence of the seeds of the above, in the proportion of 1 to 50 grams, be shown on the label.

Section 40 of the Criminal Code of the Illinois statutes prohibits the bringing into this state, seeds of Canada Thistle, Perennial Sow Thistle, European Bindweed, Russian Knapweed and Leafy Spurge.

#### Regulation XV

The name of the Illinois Department of Agriculture shall not be used in any manner for advertising purposes in connection with the sale of agricultural seeds.

## INDIANA

### Law 1941 and Amendments and Rulings to January 1, 1939

#### INFORMATION REQUIRED ON ANALYSIS TAG.

##### (A) Agricultural Seeds. Use Indiana Tags A or B. Every lot of one pound or more.

1. Commonly accepted name of kind and variety. When not known so state by using word "unknown."
2. Percentage of pure seed.
3. Percentage of inert matter.
4. Percentage of weed seeds. Prohibit if in excess of 3%.
5. Percentage of other agricultural seeds.
6. Percentage of:
  - a. Germination.
  - b. Hard seed.
  - c. Month and year of test.
7. Locality where grown. If unknown it must be so stated by using the word "unknown."
8. Name and address of person or firm who labeled seed, or who sells, offers or exposes seed for sale.
9. Name and number of secondary noxious weeds per pound. If present in excess of 1/2 of 1 percent seed is prohibited from sale.

##### (B) Mixtures. Use Indiana Tag C. Every lot of one pound or more.

Same as for unmixed agricultural seeds except that it must be called a "Mixture" and the information required under items (A) 1, 2 and 6 shall be given for each agricultural seed present in excess of 5%. The locality where grown is not required.

##### (C) Vegetable Seed. Use Indiana Tag B. Every lot of one pound or more.

All garden and truck crops included under agricultural seeds. See (A) above. Label as above under (A).

#### Prohibits the Sale, Offering or exposing for Sale of:

- (1) Agricultural or vegetable seed containing Primary Noxious Weeds subject to tolerances.
- (2) Agricultural or vegetable seed containing more than 1/2 of one percent of Secondary Noxious Weeds.
- (3) Agricultural or vegetable seeds containing more than 3% of weeds.

#### NOXIOUS WEEDS

##### Primary Noxious Weeds

PROHIBITS SEED CONTAINING ANY SUBJECT TO TOLERANCES.

Canada thistle (*Cirsium arvense*).  
Field bindweed (*Convolvulus arvensis*).  
Johnson grass (*Sorghum halepense*).  
Perennial sow thistle (*Sonchus arvensis*).  
Quack grass (*Agropyron repens*).  
Wild garlic (*Allium vineale*).

##### Secondary Noxious Weeds

PROHIBITED IF PRESENT IN EXCESS OF 1/2 OF ONE PERCENT.

Bitter wintercress (*Campe barbarea*).  
Bracted plantain (*Plantago aristata*).  
Buckhorn (*Plantago lanceolata*).  
Common plantain (*Plantago major* and *rugelii*).  
Corn cockle (*Agrostemma githago*).  
Curled dock (*Rumex crispus*).  
Dodder (*Cuscuta* spp.).  
Field peppergrass (*Lepidium campestre*).

Horsenettle (*Solanum carolinense*).  
Mustard (*Brassica arvensis*).  
Oxeye daisy (*Chrysanthemum leucanthemum*).  
Red sorrel (*Rumex acetosella*).  
Wild carrot (*Daucus carota*).

#### CONDEMNATION OF SEED.

Any lot of agricultural seed not in compliance with the provisions of this act shall be subject to seizure on complaint of the state seed commissioner to a court of competent jurisdiction in the area in which the seed is located. In the event that the court finds the seed to be in violation of the act and orders the condemnation of said seed, it shall be denatured, processed, destroyed, relabeled or otherwise disposed of in compliance with the laws of the state: Provided, That in no instance shall such disposition of said seed be ordered by the court without first having given the claimant an opportunity to apply to the court for release of said seed on promise to process or relabel to bring it into compliance with the act.

ANY GROWER of seed can sell his seed for sowing purposes, without labeling, if he has not advertised it other than by word of mouth or notice placed before his farm, provided he makes the sale and delivers the seed on his premises to the purchaser himself, provided the seed contains no Primary Noxious weeds, not more than 1/2 of one percent Secondary Noxious weeds, and not more than 3 percent of all weeds.

#### LABORATORY AND TESTS

Seed Laboratory at Lafayette is under the State Chemist and Seed Commissioner, cooperating with the U. S. Department of Agriculture. H. R. Kraybill, State Chemist and Seed Commissioner.

E. R. Clark, Associate Seed Technologist, U. S. Department of Agriculture.  
Miss Regina Schulte, Analyst, U. S. Department of Agriculture.

Number of free tests for any one firm or person limited to two samples during any one month.

#### ENFORCEMENT AND REGULATIONS

All agricultural seed shipped or delivered in the State of Indiana, must have attached to each bag of one pound or more an Indiana State Label properly filled out.

Tags are purchased from the Seed Commissioner as follows:

Style "A"—The orange colored tag, for unmixed alfalfa, clovers or grasses.

Style "C"—The green colored tag, for mixed alfalfa, clovers or grasses.

Tags for 100 pounds—8 cents each

Tags for 75 pounds—6 cents each

Tags for 50 pounds—4 cents each

Tags for 25 pounds—2 cents each

Style "B"—The uncolored manila tag for cereals, garden and truck crop seeds.

Tags for 200 pounds—8 cents each

Tags for 175 pounds—7 cents each

Tags for 150 pounds—6 cents each

Tags for 125 pounds—5 cents each

Tags for 100 pounds—4 cents each

Tags for 75 pounds—3 cents each

Tags for 50 pounds—2 cents each

Tags for 25 pounds—1 cent each

**Ruling No. 1.** In the case of leguminous seeds containing hard seeds, the actual percentage of germination should be given and may be followed by the percentage of hard seeds, but hard seeds cannot be included in the germination percentage.

**Ruling No. 2.** Wholesale seedsmen is required to attach at least one Indiana State tag, properly filled out to each bag shipped to retailer.

The retailer is then required to attach sufficient tags to cover the net weight before offering seed for sale.

**Rule No. 3.** Hybrid Corn may be so labeled only when such seed represents the first generation of a cross between strains of different

parentage and involving inbred lines of corn and/or their combinations.

**Rule No. 5.** Effective January 1, 1939. White blossom sweet clover seed containing more than 5% of mottled seeds must not be labeled *white blossom sweet clover*. Such seed may be labeled *sweet clover*.

## IOWA Code of 1941

### INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER

#### (A) Agricultural Seeds (Unmixed) Every lot.

- (1) Name of:
  - (a) Kind, or
  - (b) Kind and variety, or
  - (c) Kind and type.
- (2) Lot number or other lot identification.
- (3) Percentage of pure seed.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds. Prohibited if in excess of 3%.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - (a) Germination, exclusive of hard seed.
  - (b) Hard seed.
  - (c) Month and year tested. Test shall have been completed within a 9 month period, exclusive of month in which test was made.

Following (a) and (b) Total Germination and Hard Seed may be given, if desired.

- (8) Origin of alfalfa and red clover, if unknown it must be so stated.
- (9) Warning as to danger if seed has been treated with a compound poisonous to man or farm animal.
- (10) Name and address of person who labeled, sells, offers or exposes seed for sale.
- (11) Name and number per ounce of each secondary noxious weed in groups (B1), (B2) and (B3) and per pound in group (4) singly or collectively in excess of:
  - (a) 5 per ounce.

(See page 106, group B.)

- (b) 3 per ounce.
- (c) One per ounce.
- (d) 5 per pound.

#### (B) Mixed Agricultural Seed. Every lot.

Same as unmixed seed, except that the information required under items 1, 3 and 7 shall be given, for each agricultural seed component present in excess of 5%, in order of its preponderance.

#### (C) Vegetable Seeds Not Included Under Law.

#### (D) Seed sold by the grower on his farm are exempt from detailed labeling provisions if a placard is displayed or a written or printed statement supplied purchaser giving

- (1) Percentage of germination.
- (2) Month and year of test.
- (3) Kind and number per ounce or pound of all secondary noxious weeds present.
- (4) A guarantee that no primary noxious weeds are present.

#### (E) Information Required on labels of inoculants for leguminous plants.

- (1) Kind of plants for which inoculant is to be used.
- (2) Amount of seed content will inoculate.
- (3) Expiry date of inoculant.
- (4) Name and address of manufacturer or laboratory of origin or of vendor if he accepts responsibility for accuracy of the information.

#### (F) Seed Potatoes bearing blue certification label shall be

- (1) Certified and bear label with the word CERTIFIED thereon.

- (2) Certified by a constituted state authority or state organization recognized by the Iowa secretary of agriculture.

#### (G) Prohibits the sale, offering or exposing for sale of seed if,

- (1) Contains primary noxious weed seeds, subject to tolerances.
- (2) Contains in excess of 3% of weed seeds.
- (3) Screenings of agricultural seed containing less than 25% viable seed not marked "NOT FOR PLANTING PURPOSES," provided the claimant of said seed having been given the opportunity to apply to said court for the release of said seed.

### NOXIOUS WEEDS

PRIMARY NOXIOUS WEEDS prohibited subject to tolerances given in the rules and regulations.

- Quackgrass—*Agropyron repens*.
- Canada thistle—*Cirsium arvense*.
- Perennial sow thistle—*sonchus arvensis*.
- European morning glory—*Convolvulus arvensis*.
- Horse Nettle—*Solanum carolinense*.
- Leafy spurge—*Euphorbia esula*.
- Perennial peppergrass—*Lepidium draba*.
- Russian Knapweed—*Centaurea repens*.

### SECONDARY NOXIOUS WEEDS

- Wild carrot—*Dacus carota*.
- Sour dock—*Rumex crispus*.
- Smooth dock—*Rumex altissimus*.
- Sheep sorrel—*Rumex acetosella*.
- Butterprint—*Abutilon theophrasti*.
- Mustards—*Brassica spp.*
- Cocklebur—*Xanthium commune*.
- Buckhorn—*Plantago lanceolata*.
- Doddies—*Cuscuta spp.*

SCREENINGS, from agricultural seed subject to act, shall be prohibited from sale unless labeled, if in containers, or marked on invoice if in bulk. "NOT FOR SEEDING PURPOSES." Screenings shall include chaff, empty florets, immature seed, weed seed, inert matter and other material removed in any way, by cleaning or processing and containing less than 25% of viable agricultural seed.

"STOP SALE" orders may be issued by the secretary of agriculture or his agent if he believes any provision of the seed act has been violated and further sale prohibited until the officer has evidence the law has been complied with, or the seed has been removed from sales room open to the public, or an appeal from such order taken to a court of competent jurisdiction and the seed discharged from said order if in accordance with the finding of the court, the owner or custodian paying for a judgment of the justification of said order.

SEIZURE OF SEED. Upon the recommendation of the state secretary of agriculture or his duly authorized agents, the court of competent jurisdiction in the area in which the seed is located shall cause the seizure and subsequent denaturing, processing, or destruction to prevent the use for sowing purposes of any agricultural seed, the sale of which is prohibited due to (1) the presence of primary noxious weeds, (2) containing in excess of 3% of weeds.

### SEED LABORATORY AND TESTS

Service Laboratory—Extension Department, Iowa State College of Agriculture, Ames, Iowa.  
Dr. R. H. Porter, Analyst.  
Test fees—To Iowa residents, 30 cents per sample and up depending on kind.

### ENFORCEMENT AND REGULATIONS

Department of Agriculture  
Inspection Laboratory—Des Moines, Iowa  
E. L. Redfern—Chief Chemist.  
Frank E. Wells—Seed Analyst.

## KANSAS Law of 1935, Amended 1939

### INFORMATION REQUIRED ON ANALYSIS TAG.

#### (A) Agricultural Seeds. Every lot.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Percentage of inert matter.
5. Percentage of other agricultural seeds. (Regulation.)

6. Percentage of:
  - (a) Germination, exclusive of hard seeds.
  - (b) Hard seeds.
  - (c) Date of test. Date cannot be over one year old.
7. Where grown, if unknown, so state.
8. Lot or stock number.
9. Name and number per pound of all noxious weed seeds present singly or collectively at the rate of more than 1/10 of one per cent by count.
10. Name and address of vendor.

# Purcell Seed Co. Inc.

EVANSVILLE, IND.

### SPECIALTIES:

FANCY RED TOP

UNHULLED RED TOP

SOY BEANS

COW PEAS

and a General Field Seed Line

CARLOTS OR LESS

# DAVENPORT SEED CO.

Headquarters

## IOWA Grown TIMOTHY

Car Lots a Specialty



Hardy  
Alfalfas  
Red Clovers  
Alsike  
Sweet Clover  
Soy Beans  
Hybrid  
Seed Corn

317 E. 2ND ST.  
DAVENPORT, IOWA



*Headquarters*

WESTERN GROWN

*Kentucky*

**BLUE GRASS**

*We Buy and Sell*

Dwarf Essex Rape, Red, White and Alsike Clover, White and Yellow Blossom Sweet Clover, Alfalfa, Blue Grass, Red Top, Millet, Cane, Kaffir, Hybrid Seed Corn and all seed grains.

Correspondence Solicited

**Ouren Seed Company**

Council Bluffs, Iowa

**50 Years of Service**

**1891-1941**

*Quality*  
**FIELD SEEDS**

**STRAIGHT CARS  
MIXED CARS  
BAG LOTS**



**GEO. P. SEXAUER & SON**  
BROOKINGS, S. DAK. DES MOINES, IA.

**(B) Mixtures. Every lot.**

1. Commonly accepted name and percentage of each agricultural seed composing the mixture, when present in amount of 5% or more.
2. Percentage of weed seed.
3. Percentage of inert matter.
4. Names and numbers per pound of all noxious weed seeds present, singly or combined, at rate of more than 1/10 of one per cent by count.
5. For each kind present in excess of 5% give:
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds.
  - (c) Date of test. Date cannot be over one year old.
6. Name and address of vendor.

**(C) Vegetable seeds are not included in the law.**

**(D) Hybrid Seed Corn**

"Hybrid Seed Corn" is defined as seed of the first generation of a cross involving one or more unrelated inbred lines or their combinations. An "inbred line" is a line of corn that has been developed as a result of not less than five generations of controlled self-fertilization or its equivalent.

Any corn offered as hybrid seed corn shall be registered by filing with the Secretary of the State Board of Agriculture a verified statement giving:

- (1) Name or number by which the hybrid is designated.
- (2) The complete pedigree of each hybrid.
- (3) The name of the breeder who developed each inbred line in the combination.

In addition to the label requirements under (A) every lot shall be labeled with the name or number by which the hybrid is designated.

**NOXIOUS WEEDS**

PROHIBIT ANY:  
field bindweed—*Convolvulus arvensis*

PROHIBIT MORE THAN AN AVERAGE OF ONE SEED IN 5 GRAMS:

dodder—*Cuscuta* species; Johnson grass—*Sorghum halepense*.  
GIVE NAME AND NUMBER PER POUND IF MORE THAN 1/10 OF 1% BY COUNT EITHER SINGLY OR IN COMBINATION:  
Canada thistle—*Cirsium arvense*; corn cockle—*Agrostemma githago*; buckhorn plantain—*Plantago lanceolata*; wild mustards—*Brassica* species; French weed—*Thlaspi arvense*; quack grass—*Agropyron repens*; wild onion—*Allium* species; dock—*Rumex* species; wild oats—*Avena fatua*; bull nettle—*Solanum carolinense*; wild carrot—*Daucus carota*; chess or cheat—*Bromus* species; morning glory—*Ipomoea* species; ox-eye daisy—*Chrysanthemum leucanthemum*; hoary cress—*Lepidium draba*.

**LABORATORY AND TESTS**

Seed Laboratory at Manhattan, is maintained by the Kansas State Board of Agriculture, cooperating with the Kansas State College of Agriculture.

Paul Ijams, Director of Control Division.

J. W. Zahnley, Director of Laboratory.

Tests free to Kansas residents, but limited:

Wholesalers not more than 10 per month

Retailers not more than 10 per month

Planters not more than 5 per month

Not more than 1/3 of these allowances per any one month, may consist of redtop, bluegrass, lawn or pasture mixtures and others of similar nature.

Fee for out of state samples to be set by State Board of Agriculture.

**ENFORCEMENT AND REGULATIONS**

Enforcement is under State Board of Agriculture, J. C. Mohler, Secretary, Topeka.

"The so-called 'Disclaimer Clause,' as now commonly printed is not permitted on a seed label in Kansas."

In the case of open-pollinated corn, the county where grown must be given.

Percentage of other crop seeds to be given on analysis tag, on unmixed seeds.

Seed held for more than one year must be retested.

**KENTUCKY**

*Law of 1932*

**INFORMATION REQUIRED ON ANALYSIS TAG.**

**(A) Agricultural seeds. Use Kentucky official manila tag "A," except on cereals use yellow tag "B." Every lot of one pound or more.**

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number of each kind of noxious weed seeds and bulbs present per ounce of agricultural seeds.
5. Percentage of—
  - (a) Germination, exclusive of hard seeds.
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test.
6. Where grown; if unknown give statement to that effect.
7. Name and address of vendor.

**(B) Mixtures. Every lot of 1 pound or more. Use Kentucky official blue tag "C".**

1. That seed is a mixture.
2. Name and percentage of each kind of agricultural seed in excess of 5% by weight of total mixture.
3. Percentage of weed seed.
4. Name and number per ounce of each kind of noxious weed seeds and bulbs present.
5. For each agricultural seed present in excess of 5% give—
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds. (Regulation.)
  - (c) Month and year tested.
6. Where grown; if unknown, give statement to that effect.
7. Name and address of vendor.

**(C) Special Mixtures. Every lot of 1 pound or more. Use Kentucky official blue tag "C".**

1. That seed is a mixture.
2. Name of each agricultural seed, which is present in proportion of 5% of total mixture.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number per ounce of each kind of noxious weed seeds and bulbs present.
6. Name and address of vendor.

**(D) Vegetable Seeds. Use Kentucky official yellow tag "B".** Lettuce, peas, tomatoes, beans, onions, cabbages, carrots, melons and other truck crops listed as agricultural seeds. Label as under (A) above.

**NOXIOUS WEEDS**

Quack grass—*Agropyron repens*; dodder—*Cuscuta* sp.; sorrel—*Rumex acetosella*; buckhorn—*Plantago lanceolata*; corn cockle—*Agrostemma githago*; wild onion—*Allium vineale*; Canada thistle—*Cirsium arvense*.

Added 1936-37

Ox-eye daisy—*Chrysanthemum leucanthemum*; Johnson grass—*Sorghum halepense*.

**LABORATORY AND TESTS**

State Seed Laboratory at the Experiment Station, Lexington.

A resident of Kentucky may submit not more than 8 samples for free analysis during the calendar year and not more than 2 samples in any calendar month. Samples in excess of such numbers will be charged at the rate of:

50 cents to \$2.00 for purity tests; mixtures \$3.00

25 cents to 50 cents for germination

Non-residents' rates—purity \$3.00, germination \$1.00.

W. A. Price, Head of Entomology and Botany Department, in charge of laboratory.

**ENFORCEMENT**

Thomas Cooper, Director of Agricultural Experiment Station.

W. A. Price, enforcement agent.

Purchase Kentucky Official Tags from Director of Agricultural Experiment Station, Lexington, at following prices:

Manila tag "A" for unmixed alfalfas, clovers, and grass; blue tag "C" for mixed seeds.

Tag for 100 pounds—8 cents each

Tag for 75 pounds—6 cents each

Tag for 50 pounds—4 cents each

Tag for 25 pounds—2 cents each

Yellow tag "B" for cereals, garden and truck crops.

Tag for 100 pounds—4 cents each

Tag for 75 pounds—3 cents each

Tag for 50 pounds—2 cents each

Tag for 25 pounds—1 cent each



# ROSS SEED CO.

INCORPORATED

Established 1895

LOUISVILLE, KY.



46  
Years

The  
Best

Wholesale Field and  
Grass Seeds

Jobbers of

Orchard Grass . . Bluegrass . .  
Redtop . . Clovers . . Timothy  
. . Korean (Lespedeza) . . Soy-  
beans . . Cowpeas, Etc.

Car lots or less

ROSS SEED CO.

INCORPORATED

15th and Lytle

Louisville, Ky.

# GILT EDGE SEEDS

Wholesalers and Jobbers  
of FIELD SEEDS

Specializing in

CLOVERS  
GRASSES

KOREAN  
LESPEDeza

49 years in same location

NATIONAL SEED CO.

101 W. Main St. Louisville, Ky.

MEMBERS

AMERICAN SEED TRADE ASS'N.  
SOUTHERN SEEDSMEN'S ASS'N.

## REGULATION

1. The percentage of hard seed should be shown on the tag, but must not be included in the percentage of germination.
2. Hybrid Seed Corn must bear on the label the name of the hybrid. If the hybrid is not well known, the name of the inbreds composing it, together with the number of days required for maturity shall be reported to the enforcement officer in charge of the Pure Seed Law.

## LOUISIANA

Act of 1926 and Regulations  
1934

### INFORMATION REQUIRED ON ANALYSIS TAG

#### (A) Agricultural seed. Every lot of 10 pounds or more.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number per ounce of each kind of noxious weed seed present singly or collectively in excess of:  
(a) one seed in 5 grams.  
(See page 106, group A.)  
(b) one seed in 25 grams  
(c) one seed in 100 grams
5. Percentage of germination with the month and year tested.
6. Year in which seed was grown.
7. Where grown if brought into the state.
8. Name and address of vendor.

#### (B) Mixtures of agricultural seeds of only 2 kinds. Every lot of 10 pounds or more.

1. That seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of total mixture.
3. Percentage of weed seeds.
4. Name and number per ounce of each kind of noxious weed seed present singly or collectively in excess of one seed in each 15 grams.
5. Percentage of germination of each kind of agricultural seed present in excess of 5% together with the month and year tested, and year grown.
6. Where grown if brought into the state.
7. Name and address of vendor.

#### (C) Special Mixtures. Every lot of 8 ounces or more.

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in proportion of 5% or more.
3. Percentage of weed seed.
4. Percentage of inert matter.
5. Name and number per ounce of each kind of noxious weed present singly or collectively in 15 grams.
6. Where grown if brought into the state.
7. Name and address of vendor.

#### (D) Vegetable seeds. Every lot of 10 pounds or more.

Included under agricultural seeds. Label as under (A) above.

### NOXIOUS WEEDS

Dodder—Cuscuta epithymum; Johnson grass—Sorghum halepense; tie vine—Convolvulus arvensis; cockle bur—Xanthium canadense; cocoa grass—Cyperus rotundas; Bermuda grass—Cynodon dactylon; foxtail—Alopecurus geniculatus; ox-eye daisy—Kudbeckia hirta; wild mustard—Brassica arvensis; large dock—Rumex obtusifolius; crab grass—Digitaria sanguinalis; dandelion—Pyrrophappus carolinianus; thistle—Sonchus species.

### LABORATORY AND TESTS

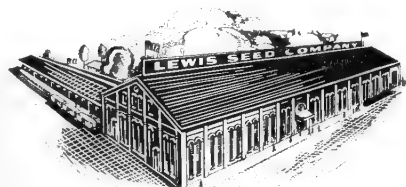
Seed Laboratory, Department of Agriculture. Baton Rouge, in charge of A. P. Kerr, State chemist.  
Commissioner of Agriculture may fix number of free samples to be tested in a period of time and may fix charges for tests of samples submitted in excess of those free of charge.

### ENFORCEMENT

Enforcement under Commissioner of Agriculture, Harry D. Wilson, A. P. Kerr, enforcement agent, Baton Rouge.

# FIELD SEEDS

STRAIGHT CARS  
MIXED CARS  
BAG LOTS



LEWIS SEED  
COMPANY

Established 1865

ALFRED CHESCHEIR, President

Louisville, Kentucky  
U. S. A.

42 YRS. OF SERVICE

Gold Medal  
FIELD SEED



OUR SPECIALTIES

REDTOP TIMOTHY  
ORCHARD GRASS  
BLUE GRASS

KOREAN LESPEDeza  
SOY BEANS COW PEAS



LOUISVILLE SEED  
COMPANY

LOUISVILLE, KENTUCKY

Branch Office and Warehouse  
LOUISVILLE, ILLINOIS

# MARYLAND

## Law of 1941

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER

#### (A) Agricultural Seeds (Unmixed). Every lot.

- Commonly accepted name of
  - Kind or
  - Kind and variety or
  - Kind and type.
- Lot number or other identification.
- Percentage of pure seed.
- Percentage of inert matter.
- Percentage of weed seeds.
- Percentage of other agricultural seed.
- Percentage of
  - Germination, exclusive of hard seed.
  - Hard seed.
  - Month and year tested. Test shall have been completed within a nine month period exclusive of the month in which the test was made. Following (a) and (b) "Total Germination and Hard Seed" may be given if desired.
- Origin of Alfalfa, Red Clover and Field corn (except hybrid) if unknown must be so stated.
- Name and address of person who labeled, or sells, offers or exposes seed for sale.
- Name and number of each kind of noxious weed seed, per ounce in group B1 and B2 and per pound in groups B3 and B4 if present singly or collectively in excess of
  - one seed in five grams (see page 106, group B).
  - one seed in ten grams.
  - one seed in twenty-five grams.
  - one seed in one hundred grams.

#### (B) Mixed Agricultural Seed. Every lot.

Same as for unmixed seed except that the information required under Items (A) 1, 3 and 7 shall be given, in the order of its predominance, for each agricultural seed component present in excess of 5%. When more than one component is named the word "mixture" or "mixed" shall be used.

#### (C) Vegetable Seeds.

- For containers of 8 ounces or more.
  - Lot number or other identification.
  - Name of kind and variety.
  - Percentage of
    - Germination, exclusive of hard seed.
    - Hard seed.
  - Month and year tested. Test shall have been completed within a nine month period exclusive of the month in which it was completed.
  - Name and address of person who labeled, or offers, sells or exposes said seed for sale.
- For containers of less than 8 ounces.
  - Name of kind and variety.
  - For seed which germinates less than the standard last established by the State Board of Agriculture.
    - Percentage of germination, exclusive of hard seed.
    - Percentage of hard seed.
    - Month and year tested. Test shall have been completed within a nine month period exclusive of the month in which it was completed.
    - Words "BELOW STANDARD" in not less than 8 point type.
  - Name and address of person who labeled, or offers, sells or exposes said seed for sale.

#### (D) Prohibits the sale, offering or exposing for sale of any agricultural or vegetable seed if,

- The test for germination has not been completed within a nine months period, exclusive of the month in which test was completed.

#### NOXIOUS WEEDS

Dodder—*Cuscuta* Spp.; Canada Thistle—*Cirsium arvense*; Quackgrass—*Agropyron repens*; Bindweed—*Convolvulus arvensis*; Johnson grass—*Sorghum naepense*; Wild garlic—*Allium vineale*; Bermuda grass—*Cynodon dactylon*.

"STOP SALE" orders may be issued by the authorized agent of the State Board of Agriculture

when he finds any agricultural or vegetable seed in violation of the provisions of this act which shall prohibit further sale of said seed until the agent has proof the law has been complied with. No "stop sale" order shall be issued or attached to any lot of seed without first giving the owner or custodian an opportunity to comply with the law or to remove seed from sale. An appeal from such an order may be made to a court of competent jurisdiction where the seeds are found, praying for a judgment as to the justification of said order and for the discharge of such seeds from the order prohibiting the sale in accordance with the findings of the court.

#### SEIZURE OF SEED

Any lot of agricultural or vegetable seed not in compliance with the provisions of this act shall be subject to seizure on complaint of the authorized agent of the State Board of Agriculture to a court of competent jurisdiction in the area in which the seed is located. In the event the court finds the seed to be in violation of the law and orders the condemnation of said seed it shall be denatured, processed, destroyed, relabeled or otherwise disposed of in compliance with the laws of the state, but in no instance without first having given the claimant an opportunity to apply to the court for a release of said seed or permission to process or relabel it to bring it into compliance with this act.

#### SEED LABORATORY AND TESTS

Seed Laboratory at Agricultural Experiment Station, College Park, Maryland. Number of free tests to Maryland citizens determined by the person in charge.

F. S. Holmes, in Charge of Laboratory.

#### ENFORCEMENT AND REGULATIONS

Enforcement under State Board of Agriculture. *Bermuda grass*—while a "noxious weed" when present in any other kind of seed, may be sold as *Bermuda grass*.

(Not under law of 1941.)

# MAINE

## Revised In 1919

### INFORMATION REQUIRED ON ANALYSIS TAG

#### (A) Agricultural Seeds. Every lot.

- Name of seed.
- Percentage of pure seed.
- Name and amount (number per pound) of each kind of noxious weed.
- Percentage of germination together with the month and year tested.

#### (B) Mixtures not included.

#### (C) Vegetable seed not included.

#### NOXIOUS WEEDS

Ball mustard—*Neslia paniculata*; bearded darnel—*Lolium temulentum*; bitter dock—*Rumex obtusifolius*; black mustard—*Brassica nigra*;

bladder campion—*Silene latifolia*; blue bur or stickseed—*Lappula echinata*; blueweed—*Echium vulgare*; Canada thistle—*Cirsium arvense*; charlock—*Brassica arvensis*; chicory—*Cichorium intybus*; clover dodder—*Cuscuta* species; clustered dock—*Rumex conglomeratus*; common ragweed—*Ambrosia artemisiifolia*; common (annual) sow thistle—*Sonchus oleraceus*; corn cockle—*Agrostemma githago*; cow herb—*Saponaria vacaria*; daisy fleabane—*Erigeron ramosus*; false flax—*Camelina sativa*; field bindweed—*Convolvulus arvensis*; field penny cress—*Thlaspi arvense*; field (perennial) sow thistle—*Sonchus arvensis*; great ragweed—*Ambrosia trifida*; Indian mustard—*Brassica juncea*; hare's-ear mustard—*Conringia orientalis*; king devil weed—*Hieracium pratense*; night-flowering catchfly—*Silene noctiflora*; orange hawk weed—*Hieracium aurantiacum*; ox-eye daisy—*Chrysanthemum leucanthemum*; perennial ragweed—*Ambrosia*

*psilostachya*; ribgrass—*Plantago lanceolata*; rutabaga—*Brassica campestris*; small seeded false flax—*Camelina microcarpa*; spiny-leaved or prickly sow thistle—*Sonchus asper*; sweet scabious—*Erigeron annuus*; tumble mustard—*Sisymbrium altissimum*; white campion—*lychnis alba*; wild carrot—*Daucus carota*; wild oats—*Avena fatua*; wild radish—*Raphanus raphanistrum*; witch grass—*Agropyron repens*; yellow dock—*Rumex crispus*.

#### SEED LABORATORY

Maine Agricultural Experiment Station, Orono. George P. Steinbauer, Analyst.

#### ENFORCEMENT

Department of Agriculture, Augusta. A. M. G. Soule, Chief of Division of Inspection.

# MASSACHUSETTS

## Law of 1938

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### (A) Agricultural seed, every lot.

- Name and variety.
- Percentage of pure seed.
- Percentage of weed seed.
- Name and number per ounce of each kind of noxious weed seeds present singly or collectively in excess of
  - one seed in each 5 grams (See page 106, group A.)
  - one seed in each 25 grams
  - one seed in each 100 grams
- Germination together with month and year of test.
- Name and address of vendor.

#### (B) Mixtures of Agricultural seeds of not more than two kinds. Every lot.

- That such seed is a mixture.
- Name, variety and percentage by weight of each kind of agricultural seed in excess of 5% by weight of the total mixture.
- Percentage of weed seeds.
- Name and number per ounce of noxious weed seeds present singly or collectively in excess of one seed in each 15 grams.
- Percentage of germination of each kind of agricultural seeds present in such mixture in excess of 5% by weight, together with the month and year tested.
- Name and address of the vendor.

#### (C) Mixtures of Agricultural Seeds not included in the above. Every lot.

- That the seed is a mixture.
- The name, variety and percent by weight of each kind present in excess of 5% by weight of the total mixture.
- Percentage of weeds.
- Percentage of inert matter.
- Name and number per ounce of each kind of noxious weed seed present singly or collectively in excess of one seed in each 15 grams of such mixture.
- Percentage of germination of each kind of agricultural seed present in excess of 5% of the entire mixture together with the month and year tested.

7. Name and address of the vendor.

**(D) Vegetable seeds. Each separate container.**

1. Kind of seed and variety.
2. Percentage of germination, together with the month and year tested provided such seed germination is less than the standard for such seed for the current year as established in Massachusetts. (See page 102 for standards.)
3. Name and address of vendor, packer or processor.

**(E) Flower Seed. Each container.**

1. Kind of seed and variety.
2. Name and address of vendor, packer or processor.

**NOXIOUS WEEDS**

Quack grass—Agropyron repens; Canada thistle—Cirsium arvense; dodder—Cuscuta species; wild mustard—Brassica species; English plantain—Plantago lanceolata.

**SEED LABORATORY**

Massachusetts Agricultural Experiment Station, Amherst, F. A. McLaughlin, analyst in charge. Tests—Any person residing or doing business in this commonwealth shall have the privilege of submitting samples of seed for test subject to rules and regulations, including a reasonable fee for such test.

**ENFORCEMENT**

State Department of Agriculture, Commissioner of Agriculture, State House, Boston.

**MICHIGAN**

**Law 1941 and Regulations**

**INFORMATION REQUIRED ON ANALYSIS TAG OR CARTON**

**(A) Agricultural Seeds. One pound or more.**

- (1) Commonly accepted name.
- (2) Lot number or other identification.
- (3) Percentage of pure seed.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination, exclusive of hard seed.
  - b. Hard seed.
  - c. Month and year of test.
- (8) Origin of red clover, alfalfa, soy beans and field corn.
- (9) Name and address of person who labels seed, or who sells, offers or exposes seed for sale.
- (10) Name of each noxious weed seed present, singly or collectively, in excess of:
  - 1 in each 5 grams.
  - 1 in each 25 grams.
  - 1 in each 100 grams.(See page 106, group A.)

**(B) Mixtures of alsike and timothy, alsike and white clover, red top and Timothy, alsike and red clover. One pound or more.**

- (1) That such seed is a mixture.
- (2) Lot number or other identification.
- (3) Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination, exclusive of hard seed, for each kind of agricultural seed present in excess of 5% of the total.
  - b. Hard seed.
  - c. Month and year of test.
- (8) Origin of red clover, alfalfa, soy beans and field corn.
- (9) Name and address of person who labels seed, or who sells, offers or exposes seed for sale.
- (10) Name and number per pound of noxious weeds present.

**(C) Special Mixtures. Eight ounces or more.**

- (1) That such seed is a mixture.
- (2) Lot number or other lot identification.
- (3) Name and percentage of each kind present in excess of 5% of the total mixture.
- (5) Percentage of weed seeds.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination, exclusive of hard seed, for each kind of agricultural seed present in excess of 5% of the total.
  - b. Hard seed.
  - c. Month and year of test.
- (8) Origin of red clover, alfalfa, soy beans and field corn.
- (9) Name and address of the person who labels seed, or who sells, offers or exposes seeds for sale.
- (10) Name and number per pound of noxious weeds present.

**(D) Lawn grass mixtures. Every lot.**

- (1) That seed is a mixture.
- (2) Name and proportion of each ingredient seed present in quantity of 5% or more.
- (3) Percentage of inert matter.
- (4) Percentage of weed seeds.

# HERE IT IS - TOP FLIGHT BANTAM

## An All-America Winner for 1942

## Sensational New Hybrid Sweet Corn!

To make real friends of your customers, suggest they plant some of this Top Flight Bantam.

This corn has larger kernels, more tender kernels, and a sweeter, more succulent flavor than any sweet corn you have ever tried. TOP FLIGHT averages 82 days from planting to the edible stage; ears are predominantly 16 rowed, of extremely uniform size, and well filled tips. Good kernel depth. Shows high degree of resistance to smut and ear worm damage. Top Flight is well adapted to areas as far north as sweet corn of 82 days maturity can be planted, to far down in the cotton belt. Gets good results farther south than can be expected of most bantam types.

As you can well imagine, the demand for this corn is great, while the supply is small. To be sure you get enough to supply your customers who want a superior sweet corn, better place your order NOW.

Since 1884  
★ ★ ★  
Growers of  
GARDEN SEED  
lowealth  
HYBRID CORN



Top Flight Bantam  
is an Exclusive  
Michael - Leonard  
Creation

# Michael-Leonard Co.

Chicago, Ill.  
Sioux City, Iowa

# KING

headquarters

for

MICHIGAN

GROWN  
SEEDS

RED CLOVER

ALFALFA

VETCH

H. C. KING & SONS, INC.

BATTLE CREEK

MICHIGAN

HARDY SELECTED  
NORTHERN GROWN  
SEED

ALFALFA SWEET CLOVER  
RED and ALSIKE CLOVER  
TIMOTHY  
TIMOTHY and ALSIKE  
SEED CORN

SHIPPERS OF

CARLOTS - - MIXED CARS



Pride of the North Brand

Guaranteed Highest Quality Field  
Seeds

WRITE FOR SAMPLES AND PRICES

TWIN CITY SEED CO.

STANLEY FOLSOM, Mgr.

130 2nd St., N.E.

Minneapolis, Minn.

- (5) Percentage of other agricultural seeds.
- (6) Percentage of germination of each kind of agricultural seed present in excess of 5% of the total mixture with the month and year tested.
- (7) Name and address of person who labels seed, or who sells, offers or exposes seed for sale.

**(E) Vegetable seeds. Each separate container.**

- (1) Kind and variety of seed.
- (2) Percentage of germination together with month and year tested, if the germination is below the Michigan standard for that kind and variety. (See page 102 for standards.)
- (3) Name and address of person who labels seed, or who sells, offers or exposes seed for sale.

**(F) Hybrid Seed Corn.**

Use of term "Hybrid," with seed corn, shall be restricted to first generation stock of a cross, the parentage of which involves one or more inbreds. In addition to the regular label requirements (A) every lot shall be labeled with the name or number by which the hybrid is designated and the vendor shall file with the Commissioner of Agriculture a statement giving the pedigree of the hybrid and name of the breeder who developed the inbred.

**Prohibits the Sale, Offering and Exposing for Sale of—**

Agricultural seed containing noxious weed seeds in excess of one weed seed to 2,000 agricultural seeds.

**NOXIOUS WEEDS—Prohibited 1 to 2000 crop seeds.**

Quack grass—Agropyron repens; Canada thistle—Cirsium arvense; dodder—Cuscuta species; mustards (charlock, black mustard and Indian mustard)—Brassica or sinapsis species; wild carrot—Daucus carota; bindweed—Convolvulus arvensis; perennial sow thistle—Sonchus arvensis; Hoary alyssum—Berteroa incana.

**SEIZURE OF SEED.**

The Commissioner, his deputy or duly appointed agent may seize any lot of agricultural or vegetable seed which, in his opinion, is being sold, offered or exposed for sale contrary to the provisions of this act. If after analysis said seed were found to be in violation to this act the commissioner, his deputy or duly authorized agent shall make complaint before a justice of the peace in the township or city where such seed were seized. If said seed shall be found upon trial to be possessed for the purpose of being sold, offered or exposed for sale contrary to this act, the justice shall render judgment as in his discretion seems proper.

- a. Seized seed to be forfeited to the state to be disposed of.
- b. Defendant clean seed under reasonable restrictions imposed by the commissioner.
- c. Defendant properly mark or label seed according to the requirements of this act. In any judgment so rendered, the defendant shall pay the court costs and the actual necessary expenses in the seizure of such seed before the seed is returned to him.

**SEED LABORATORY**

Department of Agriculture, Lansing.  
Chas. A. Stahl, seed analyst.

Fees—Field seeds, 50 cents; chaffy grasses, \$1.00; mixtures, 50 cents for each crop seed in excess of 5% (including germination). Germination only, 50 cents per test.

**Requirements for Grades**

Grasses from	Group I Min.	Group II Max.	Shade Grasses Min.	Group III Max.	Rye-Grass Max.
Grade A...	48%	45%	....	....	15%
Grade A for shade...	....	....	48%	....	15%
Grade B...	32%	55%	....	....	25%
Grade B for shade...	....	....	20%	....	25%
Grade D...	....	....	....	15%	35%
Grade D for shade...	....	....	20%	15%	35%

**ENFORCEMENT AND REGULATIONS**

Enforcement—Leo V. Card, Commissioner of Agriculture.

**Regulations:**

1. Mixtures—Any two or more kinds of agricultural seeds in quantities of 5% or more in the same lot shall constitute a "mixture." Agricultural seeds in mixtures must be present in quantities of 5% or more to be considered as a part of the pure seed.
2. Hard seeds—Germination guarantee must not include the so-called "hard seed" as seed germinated. Additional information such as hard seeds is permissible on the tag. Permit hard seeds to be added to actual germination as "Probable live seed."
3. Michigan lawn grass grades (August, 1941)—Along with the regular analysis required under (D) in a conspicuous place, each package, bag, carton or bulk of mixed lawn seed meeting the requirements of grade A shall be labeled "Lawn Seed Michigan Grade A" and all meeting the requirements of Grade B shall be labeled "Lawn Seed Michigan Grade B." All mixed grass seed not meeting the requirements of Grade A or B must be designated as "Grass Seed Grade D" and must meet the requirements of Grade D.
4. When making up mixtures, if the inert matter in Grades A & B is less than the maximum allowed, additional Red Top may be added to make up the difference. Similarly in Grass Seed Grade D, as much as 5% Rye grass may be added. In all cases the excess of these components must be compensated by at least an equal amount of inert matter.

**Classification of Grasses  
Group I (Turf Grasses)**

Kind of Seed	Minimum Purity	Minimum Germ.
Ky. Blue Grass (Poa pratensis).	82%	80%
*Rough Blue Grass (Poa trivialis)	90%	70%
European Red Fescue (Festuca rubra-genuina) .....	97%	80%
New Zealand Chewings Fescue (Festuca rubra-fallax) .....	97%	70%
†Bent Grasses .....	97%	85%
White Clover .....	95%	†92%

**Group II (Nurse Grasses)**

Red Top (Agrostis palustris, A. Alba) .....	92%	90%
Rye Grass (Lolium perenne and italicum) .....	97%	90%

**Group III (Special Purpose Grasses)**

Seaside Bent (Agrostis palustris maritima) .....	97%	85%
Canada Blue Grass (Poa compressa) .....	82%	85%
Annual Blue Grass (Poa annua)	82%	85%
Rough Blue Grass (Poa trivialis) .....	90%	70%
Hard Fescue (Festuca ovina duriuscula) .....	97%	80%
Fine Leaved Fescue (Festuca ovina, tenuifolia) .....	97%	80%
European Red Fescue (Festuca rubra-genuina) .....	97%	80%
Sheeps Fescue (Festuca ovina) ..	97%	80%

**Group IV (Filler Grasses) (Not recommended for lawn)**

Crested Dogtail (Cynosurus cristatus) .....	97%	80%
Wood Meadow Grass (Poa nemoralis) .....	80%	80%
Orchard Grass (Daetylis glomerata) .....	80%	80%
Meadow Fescue (Festuca elatior)	95%	90%
Timothy (Phleum pratense)....	98%	90%

Note: Valuable in shady places are: Rough Blue Grass, Chewings Fescue, Velvet Bent (agrostis canina), Fine Leaved Fescue.

\*Also a good Nurse Grass.

†Minimum Purity for South German Mixed Bent 80%.

‡Total germ. and Hd. Seeds.

# WOODRUFF & SONS, S.e.e.D.

SINCE 1865

**S**eed, field and garden  
**D**ependable stocks

**W**atermelon seed  
**O**nion seed  
**O**nion sets  
**D**andelion seed  
**R**adish popular varieties  
**U**niform quality  
**F**inest western grown peas and beans  
**F**air dealing for 77 years

**A**sparagus seed and plants  
**N**orthern grown field seed  
**D**ill and other herb seed

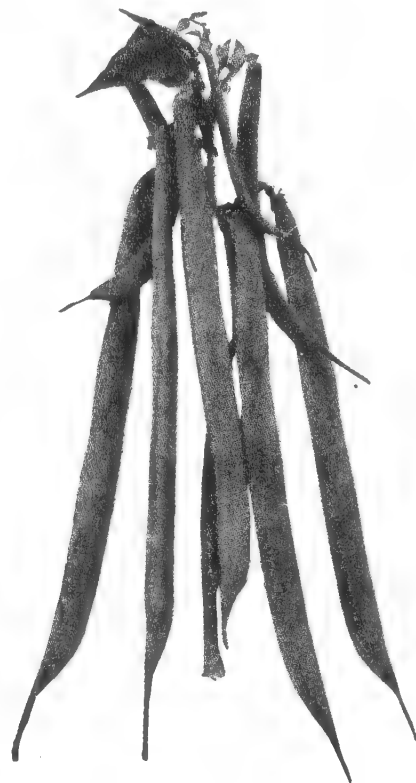
**S**quash and spinach  
**O**rders to **ORANGE, CONN.**  
**N**eeds for lawn seed  
**S**eed for the **CANNER, JOBBER and RETAILER**

INQUIRIES INVITED

WAREHOUSES CONVENIENTLY LOCATED FOR QUICK DELIVERY

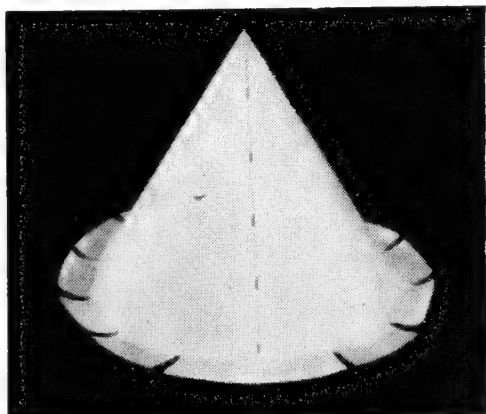
**S. D. WOODRUFF & SONS, INC.**  
**ORANGE CONN.**

**S**  
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## THREE PROFITABLE ITEMS FOR THE SEED TRADE

### SUNRAY PLANT COVER

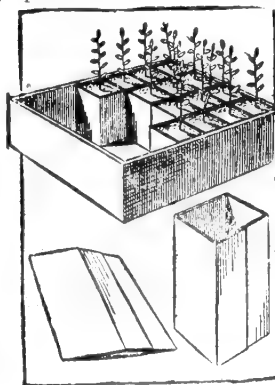


**WIRE REINFORCED!**

Feature **SUNRAYS** in your 1942 Catalogue. The Plant Cover the grower has been waiting for. **SUNRAYS** are wire-reinforced to withstand the pressure of driving rains and wind. **SUNRAYS** have increased height and are reasonably priced.

### EXPAN PROPAGATING POTS

Offer the Grower this **MODERN**, efficient method of transplanting. Every plant **SURVIVES** the haz-



ards of transplanting because the root system is not disturbed. The plant **REMAINS** in the Pot which soon deteriorates after transplanting. **EXPAN POTS** are available in 50 combinations of size and weight of material to meet the requirements of various plants ranging from bedding plants, vegetable plants, to trees such as conifer, avocado and many others.

### EXPAN TREE PROTECTOR

For the protection of young trees from damage caused by Sunburn, Rabbits, Squirrels, etc. Are so economical that **THE LOSS OF ONLY ONE TREE PER ACRE WILL COST MORE THAN PROTECTORS FOR THE ENTIRE ACRE.** These Protectors are rolled which shapes them for the tree. The fastening means is attached to each Protector. Installation is a simple and rapid operation. Every tree Grower and Owner is a prospective customer for **EXPAN TREE PROTECTORS.**



**WE WILL BE PLEASED TO FURNISH CATALOGUE CUTS FREE UPON REQUEST**  
**PAXTON PRODUCTS CO. P. O. BOX 68 RIVERSIDE, CALIF.**



# MINNESOTA

## Act as Amended 1941 and Regulations

### INFORMATION REQUIRED ON ANALYSIS TAGS. USE MINNESOTA STATE TAGS. (Information In Not Less Than 8 Point Gothic Caps.)

#### (A) Agricultural seeds. One pound or more.

1. Commonly accepted name and variety.
2. Percentage of pure seed.
3. Percentage of weed seeds. (Prohibit 2%).
4. Name and number per pound of certain primary noxious weed seeds when present singly and collectively in excess of 10 per pound. Prohibited if in excess of 25 per pound. Seed noxious weed section. (If less than 10 per pound can be marked "trace.")
5. Percentage of germination together with the date of test. Test cannot be over 6 months old.
6. Where grown (in case of corn the county).
7. Name and address of vendor.

#### (B) Mixtures of field seeds. One pound or more.

1. The words "Mixed Seeds."
2. Name and percentage by weight of each kind of agricultural seed in excess of 5% of the total mixture.
3. Percentage of weed seeds (Prohibit 2%).
4. Name and number per pound of noxious weeds when singly or collectively in excess of 10 per pound.
5. Percentage of germination of each kind of agricultural seed together with the date of test.
6. Where grown.
7. Name and address of vendor.

#### (C) Special Mixtures. Eight ounces or more.

1. The words "Special Mixture" or "Lawn Mixture."
2. Name (for Lawn grass mixtures—give the name and percentage) of each kind of agricultural seed present in excess of 5 percent.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Number of seeds per pound of noxious weeds. (except in lawn mixtures)
6. Percentage of germination of each kind in excess of 5%. Test cannot be over 12 months old.
7. Full name and address of vendor.

#### (D) Vegetable seed.

Not included under law.  
Agricultural seed shall include the seeds planted and grown in Minnesota for the production of root crops, grains, seeds, forage, hay, and for green manure crops and lawns.

#### (E) Hybrid Seed Corn.

**Definition**—"Hybrid Seed Corn" shall be seed of the first generation of a cross involving two, three or four different inbred lines of corn or their combinations and shall be restricted to seed of single crosses, three-way crosses and double crosses, these in turn being defined as follows:

- (1) Single cross—The first generation of a hybrid between two inbred lines.
- (2) Three-way cross—The first generation of a hybrid between a single cross and an inbred line.
- (3) Double cross—The first generation of a hybrid between two single crosses.

**Maturity Zones**—The Dean and Director of Department of Agriculture of the University of Minnesota shall determine, establish and number or otherwise identify corn growing sections of the state and determine and publish for each section so established, the approximate number of days growing season re-

quired for corn from emergence of the corn plants above ground after planting to maturity.

**Label**—In addition to label requirements under (A) the label must state:

- (1) Whether said hybrid corn is a single cross, three-way cross or double cross.
- (2) The year, county and state in which it was grown.
- (3) The approximate number of days for maturity in the section in Minnesota where said corn is intended to be grown.

#### SCREENINGS

It shall be unlawful for any person to sell to the consumer, offer or expose for sale any screenings of any name or nature that have not been devitalized by grinding sufficiently fine to destroy all weed seeds, or otherwise devitalize them.

#### "STOP SALE"

The commissioner is authorized to seize and hold any lot, parcel, package or bulk of agricultural seeds or mixtures of the same found in violation of any provisions of the seed law or rules and regulations thereof until same have been complied with or said violation otherwise disposed of.

#### SEIZURE OF SEED

The commissioner upon seizing any agricultural seeds shall notify the person who was in possession of such seeds, or the owner thereof, or his agent, of such seizure, and return said seed to the consignor upon receipt of the expenses for transportation and also the expenses in handling, storing or caring for said seed, before same is billed for return shipment. If after 10 days said costs are not paid, the commissioner may confiscate said seed and destroy or otherwise dispose of it to prevent its use for seeding purposes and the net proceeds from the sale of such seed by the commissioner shall be transmitted to the State Treasurer.

**IMPORTED SEEDS.** It shall be unlawful to import or bring into the state or transport within the state any agricultural seeds unless each container shall bear a label giving—

1. Kind and variety of seed.
2. Percentage of purity.
3. Percentage of germination and date of test.
4. The state from which seed was shipped, if corn, the county in which it was grown.
5. Name and address of person shipping seed.

In all other respects the seed shall conform to the act and the rules and regulations of the commissioner.

#### NOXIOUS WEEDS

Prohibited when in excess of 25 per pound, singly or collectively.

Quack grass—*Agropyron repens*; Canada thistle—*carduus arvensis*; perennial sow thistle—*Sonchus arvensis*; dodders—*cuscuta* species; oxeye daisy—*Chrysanthemum leucanthemum*; buckhorn plantain—*Plantago lanceolata*.

Prohibited when in excess of 9 per pound, singly or collectively.

Perennial pepper grass—*Lepidium draba*; horse nettle—*Solanum carolinense*; Australian field cress—*roripa* or *radicula austriaca*.

Prohibit any—Creeping Jennie—*Convolvulus arvensis*. Leafy spurge—*Euphorbia esula*.

#### SEED LABORATORY AND TESTS

**State Seed Testing Laboratory**—University Farm, St. Paul. J. L. Larson, Chief Analyst. Fees for tests (5 free samples allowed during a year.)

**Germination**—  
25 cents—corn, peas, flax, beans, cereals, vetch and such larger seeds.  
30 cents—alfalfa, clover, rape, sorghum, millet, Sudan grass, timothy and similar seeds, also

vegetable and flower seeds.

40 cents—blue grass, redtop, rye grass, wheat grass, brome grass, fescues, tobacco, Reed Canary grass and similar smaller grasses.

**Purity**—  
25 cents—cereals, buckwheat, flax, vetch and other seeds of similar size.

50 cents—millets, Sudan grass, alfalfa, alsike clover, red clover, sweet clover, rape, timothy, rye grass, cereal mixtures, slender wheat grass and seeds of similar character.

\$1.00—white clover, orchard grass, timothy and alsike mixtures, all clover mixtures and all uncleaned seeds.

\$2.00—Kentucky blue grass, redtop, bent grasses, and all lawn grass mixtures.

**Examination for Noxious Weeds**—

50 cents—grasses and other small seeds.

30 cents—other larger seeds.

#### ENFORCEMENT AND REGULATIONS

**Enforcement:** State Dept. of Agriculture  
537 State Office Bldg., St. Paul.  
Division of weed and seed control, C. P. Bull, director.

#### Regulations:

**Grimm Alfalfa**—After Sept. 1st, 1930, no alfalfa seed shall be sold in Minn. as "Grimm" alfalfa in amounts of 30 pounds or more, except in sealed sacks bearing labels of the seed certification agency of the state in which the seed was grown.

The name "GRIMM" when used to designate the variety of alfalfa and referring to the seed of alfalfa shall mean and refer only to alfalfa seed, which may be traced through definite lineage to known Grimm alfalfa fields in Carver county, Minnesota. The size of the label shall not be less than two inches by four inches. Type not less than 8 point Gothic caps.

**Re-Germination Tests**—Tests made the year previous to which the seed is offered for sale are not regarded as fulfillment of the law. Date of test shall not be more than 6 months prior to date of sale.

**Lawn grass** labels must be placed on the front of the carton.

**Sugar beets** and mangels shall be regarded as agricultural seeds and labeled as such.

**Hard seeds**—In stating the germination it shall be permissible to state the actual germination in terms of %, the hard seed, (where hard seeds occur) in terms of % and add these two figures together to get a figure which can be listed as "live seed."

#### SEED TAG SALE ACT

The following tags shall be used for pure and unmixed seeds other than cereals and shall be obtained from the Commissioner of Agriculture at the given prices.

**YELLOW TAGS** for alfalfa, sweet clover, red clover, alsike clover, white clover, lespedeza, and other legume seeds of similar size, timothy, bromus, rye grass, orchard grass, reed canary grass, blue grass, fescues, red top, rape, bent grass and wheat grass.

**GREEN TAGS** for flax, millets, proso, sorghum or cane, kafir corn, milo maize, mangold, hemp, sudan grass, rutabagas and vetches.

**BROWN TAGS** for field and canning peas, navy and/or white beans, sunflowers, field and sweet corn and soybeans.

**WHITE TAGS** for any and all mixtures of seeds of the foregoing groups when two or more kinds, and/or varieties are intermingled in proportions of five percent or more by weight.

#### PRICES OF TAGS:

100 to 150 pound containers	5c each.
60 to 99 pound containers	4c each.
30 to 59 pound containers	3c each.
15 to 29 pound containers	2c each.
1 to 14 pound containers	1c each.

# MISSISSIPPI

## Law of 1940 and Regulations Effective January 1, 1941

### INFORMATION REQUIRED ON ANALYSIS TAGS.

#### (A) Agricultural Seeds. Every lot of 5 pounds or more

1. Common name and variety.
2. Net weight.
3. Lot number. (Regulation.)
4. Percentage of pure seed.

5. Percentage of weed seeds. Prohibit if in excess of 2½%.

6. Percentage of other crop seed. (Regulation.)

7. Percentage of inert matter. (Regulation.)

8. Name and number per pound of each noxious weed present singly or collectively in excess of:

- (a) One in each 5 grams.  
(See page 106, group A.)

- (b) One in 25 grams.
- (c) One in 100 grams.

9. Percentage of:

- (a) Germination, exclusive of hard seeds.
- (b) Hard seeds. (Regulation.)
- (c) Month and year of test, provided not over 180 days prior to date of sale.

10. Where grown.

11. Full name and address of person responsible for the label.

**(B) Mixtures of agricultural seeds (by regulation every lot)**

1. That such seed is a mixture.
2. Net weight.
3. Lot number. (Regulation.)
4. Name and percentage of each agricultural seed present in excess of 5% of total mixture.
5. Percentage of weed seeds. Prohibit if in excess of 2½%.
6. Percentage of other crop. (Regulation.)
7. Percentage of inert matter. (Regulation.)
8. Name and number per pound of each noxious weed seed singly or collectively in excess of one seed in each 15 grams of the mixture.
9. For each agricultural seed present in excess of 5% give:
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test, provided not over 180 days prior to the date of sale.
10. Where grown.
11. Full name and address of person responsible for the label.

**(C) Vegetable seed. Each separate container**

1. Name of kind and variety.
2. (a) Year during which seeds were grown or (b) Percentage of germination, hard seed if present and calendar month and year of test. (Regulation.)
3. For seeds germinating less than the standard last set by the Association of Official Seed Analysts in addition to (b) shall show the words "Below Standard." (Regulation.)
4. Name and address of party responsible for the information given.

**Melons, Peas and Beans included as agricultural seeds**

**NOXIOUS WEEDS**

Wild onion; Bermuda grass; Johnson grass; dodder; hawkweed; bindweed; nut grass or cocoa grass; dock and plaitain.

**WITHDRAW FROM SALE.**

Seeds not having a reasonable viability, or that are extremely impure, notwithstanding that

they may be properly labeled, shall be withdrawn from sale when, in the opinion of the Commissioner such withdrawal is in the interest of normal crop production.

**SEIZURE OF SEED.**

The Commissioner of Agriculture may seize and hold any lot of agricultural or vegetable seeds found to violate any of the provisions of the seed act until the law has been complied with and said violation otherwise legally disposed of.

**SEED LABORATORY AND TESTS**

State Seed Laboratory, State College, A. D. Suttle, Analyst, State College, Mississippi.

Any citizen of Mississippi has the privilege of submitting not more than 10 samples of agricultural and vegetable seeds for free test and analysis in any one year. Charges to non-residents to be fixed by the Commissioner of Agriculture.

**ENFORCEMENT**

State Department of Agriculture, Jackson. Si Corley, Commissioner of Agriculture. J. M. Dean, Chief Inspector. Seedsmen must secure permit of Commissioner of Agriculture annually, \$1.00 for each seedsmen registered and 25 cents for each agent.

**REGULATIONS**

**Notice of Shipment:**

- (a) Notice of shipment of agricultural or vegetable seeds shall be mailed within 24 hours from shipping date and shall bear:
  - (1) Name and address of shipper.
  - (2) Name and address of person to whom shipped.
  - (3) The amount.
  - (4) The kind and variety of seed.
  - (5) The lot numbers of seed.
- (b) Notice of the location of so-called commission boxes of packet seed shall state:
  - (1) Number of boxes.
  - (2) Number and size of packages in each.
  - (3) Their classification as to kinds of seed contained therein.
  - (4) Name and address of shipper and party to whom delivered.

Size of analysis tag shall be 4¼ x 2¾ inches, or equivalent in square inches.

All information required an analysis tag shall be placed on one side of the label without intervening matter.

**Headquarters  
FOR  
High Quality**

**NORTHERN  
MINNESOTA**

**SWEET CLOVER**

**ALFALFA**

**Timothy**

**Red Clover**

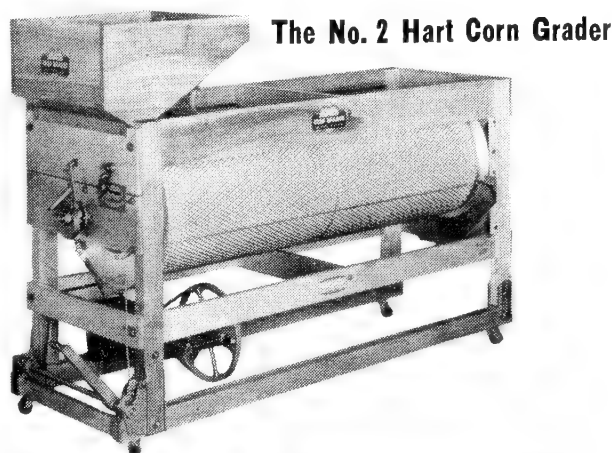
**Alsike Clover**

**Land O'Lakes Creameries, Inc.**

**SEED DIVISION**

**Minneapolis, Minnesota**

**Extra Speed and Flexibility in the Grading  
of Hybrid Seed Corn by LENGTH!**



**The No. 2 Hart Corn Grader**

**ORDER NOW FOR PROMPT DELIVERY**

Grades by length at a capacity up to 25 bushels per hour. Yields the exact desired separations of uniformly graded corn. Compact, sturdy, accurate—easy to move, easy to clean out. Comes complete with motor, extension cord with toggle switch, V-belt drive with variable speed sheave on motor. For smaller capacity requirements, 7 to 12 bushels per hour, get details on the No. 1 Hart Corn Grader.

**HART-CARTER COMPANY**

684 Nineteenth Avenue, N. E.

Minneapolis, Minnesota



**Accurate Length Separations  
for Wheat, Flax, Vetch and  
Oats, Crested Wheat Grass, Rye  
Grass, Fescues**



**Install the No. 15  
Utility Model**

**CARTER DISC SEPARATOR!**

Here's the thrifty way to remove objectionable longer or shorter foreign material from grains and grass seeds. Removes cockle, oats and barley from wheat. Eliminates quack, watergrass, from flax. Separates vetch from oats. Cleans rye grass, crested wheat grass, fescues. Easily operated. Uses little power. A big value in cleaning equipment at surprisingly small cost!

**HART-CARTER COMPANY**

684 Nineteenth Avenue, N. E.

Minneapolis, Minnesota

Buy at the Source  
of Supply

## MONTANA GROWN

ALFALFA SEED

CRESTED WHEAT GRASS

SWEET CLOVER

WESTERN WHEAT GRASS

LAKIN SEED CO.

MILES CITY MONT.

## Good SEED

Louisiana Grown

## WHITE DUTCH CLOVER

(more plants per pound)

Other Grass Seeds  
Soy Beans

3401 acres chiefly seed crops

One of the best equipped clean-  
ing plants in Louisiana

W. T. NOLIN  
HAMBURG, LOUISIANA

The date on the analysis tags should be the date the germination test was completed. A complete analysis totaling 100% must be given. Blank spaces on a form tag or incomplete analysis are not permissible. Abbreviation of names of the variety and kind of seed is not permissible.

Place of origin shall not be used as part of varietal name and kind of seed, as Miss. oats. Modifying words or phrases shall not be used in connection with the variety, as "type," "for forage purposes," etc.

Brand names, designs, grades or pictures indicating a contradiction to any part of the analysis shall not be permitted.

Different varieties of the same kind of seed, when in quantities less than 5%, will be considered other crop seed.

Invoices and records of purchase or sale of all seed by the dealer or seedsman shall be accessible for examination by authorized agent of the Department of Agriculture for a period of 3 years.

Trucks or other motor conveyors transporting seed for sale on the public highways shall have available for examination a bill of lading, waybill, or delivery receipt showing (1) the name of the shipper or party from whom purchased; (2) the name and address of the party to whom seeds are to be delivered; (3) the kind and amount of each separate kind of seed and (4) the name of the truck driver and truck line making the delivery.

Farmer seed sold off the premises to be used for planting purposes must be tagged. Seeds gathered in elevator or other establishments to be sold by farmers or others are subject to the act.

Express, mail and freight, including truck deliveries to consumers of seed shall also be subject to provisions and rules and regulations pertaining to the enforcement of the Seed Law.

New analysis tag bearing the name of the

vendor or other party responsible shall be placed on seed after the original test date becomes 180 days old.

Useless seed may not be sold or given away for planting purposes. Seed will be considered useless if it contains in excess of 2½% total weeds or 300 noxious weeds per pound, or is of excessively low germination or mislabeled seed, whose variety is unadapted and unsuited for seeding purposes in Mississippi.

Seeds treated with fungicides shall show on the label the words "Poison Treated" in not less than ¼-inch face red type.

Minimum germination. No agricultural seed except grasses, unscarified legumes, garden seed listed in the Standards for Germination and seed released by the U. S. customs shall be offered for sale if the germination is below 60%.

Excessive Noxious Weeds. Seeds containing more than 200 noxious weeds per pound shall be labeled in red ink in not less than 12 point type "Excessive Noxious Weeds." Such excess shall not exceed 300 per pound. Seed labeled or sold as "Certified," "Registered" or "Pedigreed" must have been certified or registered and inspected by an officially authorized agency and cannot be sold in Mississippi unless the party selling shall have registered with the Mississippi Department of Agriculture Seed Laboratory the lot number, variety and kind, name and address of the grower, and the history of the seed.

Mixed varieties of oats shall not be sold for planting purposes in this state.

False wild oats will be considered weeds.

Permits. All seed permits expire December 31 of each year. Failure to secure permit by March 1 will incur a penalty equivalent to the cost of the license; anybody selling seed required to be tested and tagged is required to have a permit.

## MISSOURI Law 1938

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### (A) Agricultural seeds. Each lot one pound or more.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number\* of each noxious weed present singly or collectively in excess of:  
(a) One in 5 grams.  
(See page 106, group A.)  
(b) One in 25 grams.  
(c) One in 100 grams.

5. Percentage of germination (including hard seeds) together with month and year tested.
6. Percentage of hard seeds.
7. Name of state and county (if field corn) where grown. If unknown, a statement to that effect.
8. Full name and address of vendor together with the vendor's "Missouri Permit No. ...".

#### (B) Seed Mixtures.

1. That such seed is a mixture.
2. Name and percentage of each kind present in excess of 5% by weight of the total.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number\* of each noxious weed present.
6. Percentage of germination of each kind present in excess of 5% by weight.
7. Full name and address of vendor together with vendor's "Missouri Permit No. ...".

#### (C) Vegetable Seeds. Each separate container.

1. The kind of seed, variety and "Missouri Permit No. ...".
2. Percentage of germination together with the month and year tested, if the germination is below the Missouri Standard. (See page 102 for standards.)

3. Full name and address of the packeter.

4. No label required on vegetable seed sold and delivered directly to purchaser from a container which is labeled.

### NOXIOUS WEEDS

PROHIBITED—Canada thistle; Johnson grass; Field bindweed—Convolvulus arvensis.

NAME AND NUMBER\*—Quack grass; dodder; Russian thistle; wild carrot; buckhorn and other varieties of plantain; wild onion; red sorrel; ox-eye daisy; garlic; docks.

### LABORATORY AND TESTS

Federal-State Laboratory at Columbia, Missouri. Missouri College of Agriculture, cooperating with the U. S. Department of Agriculture.

W. C. Etheridge, Collaborator in charge.  
Miss Clara Fuhr, Analyst, U. S. Dept. of Agriculture.

May regulate the maximum number of free samples tested for any one person or firm in a given period of time.

### ENFORCEMENT AND REGULATIONS

Missouri State Department of Agriculture, Jefferson City, Missouri.

Mrs. Rose K. Poehlman, Administrative Assistant to the Commissioner of Agriculture.  
W. R. Crispin, Marketing Specialist, Grain and Seed Division, U. S. Dept. of Agriculture.

Permit number to be secured annually at cost of \$1.00 on application to Department of Agriculture. The permit expires December 31 each year.

"Each container" means each and every packet containing seeds.

Hard Seeds—Law includes hard seed in per cent of germination and requires separate statement.

\* No unit of quantity is given in the law. Their model tag shows number per gram.

## MONTANA

### Law of 1913 and Amendments to 1939

### INFORMATION REQUIRED ON ANALYSIS TAG

#### (A) Agricultural seeds. One pound or more.

1. Lot number or other distinguishing mark.
2. Commonly accepted name.
3. Variety; if unknown, state "Unknown."
4. Percentage of pure seed.
5. Percentage of weed seed.
6. Percentage of inert matter.

7. Percentage of other crop seed.
8. Name and number per pound of noxious weeds present in excess of:
  - (a) One in 5 grams.
  - (b) One in 25 grams.
  - (c) One in 100 grams.
9. Percentage of germination, together with date of test. In cases where there are hard seed, these shall be stated separately with the provision that any portion or all the per cent of such hard seed may be added to the per cent of germination and stated as "total live seed".
10. Name of state where grown.
11. Name and address of vendor.

#### (B) Mixtures. One pound.

1. Name of mixture.
2. Lot number or other distinguishing mark.
3. Name and percentage of each kind of agricultural seed present in excess of 5% of total mixture.
4. Percentage of weed seeds.
5. Percentage of inert matter.
6. Percentage of other crop seeds.
7. Name and number per pound of noxious weeds present singly or collectively in excess of one seed in each 15 grams.
8. Percentage of germination of each kind of agricultural seed present in excess of 5% together with the month and year tested. In cases where there are hard seed, these shall be stated separately with the provision that any proportion or all the per cent of such hard seeds may be added to the per cent of germination and stated as "total live seed".
9. Name and address of vendor.

#### (C) Vegetable seed are not included in the law.

#### NOXIOUS WEEDS

Quack grass; fanweed or French weed; wild oats; dodder; Canada thistle; wild mustard; wild morning glory; white top; leafy spurge; perennial sow thistle; Russian knapweed; blue lettuce.

#### SEED LABORATORY AND TESTS

Montana Grain Inspection Laboratory,  
Agricultural Experiment Station,  
Bozeman, Montana.  
W. O. Whitcomb, Analyst.

Fees—Residents of Montana receive 5 free samples each year. A charge of 50 cents each will be made upon additional samples. Purity analysis of special mixtures will be made at the rate of 75 cents per hour of actual time required.

#### ENFORCEMENT AND REGULATIONS

Enforcement under Department of Agriculture  
Helena, Montana

J. T. Kelly, Commissioner.

When blank spaces on the label are unfilled, it shall be deemed to imply the word "none".  
(part of the law)

Classification of seeds.

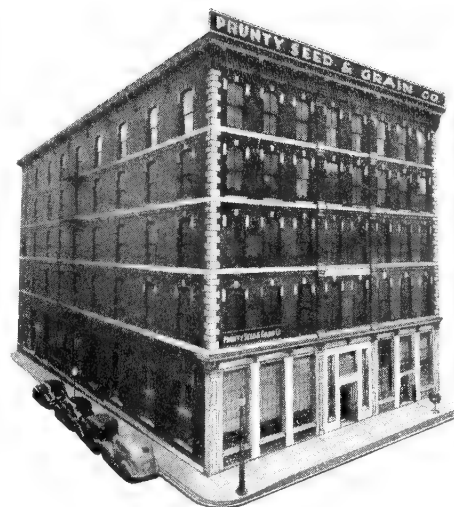
1. *Agricultural seeds* shall be seeds which, before the removal of weed seed and inert matter, shall be 75% pure seed, except in grass seed which contain a high per cent of empty glumes and is otherwise of good quality.
2. *Mixed agricultural seed* shall be seeds which, before the removal of weed seed and inert matter, consists of 75% or more of agricultural seeds of two or more kinds in excess of 5% each. Grains for which Federal Standards have been fixed shall be classed as to mixtures of the individual grains but not as mixed grain, and shall be designated as provided for in the Federal Standards.
3. *Screenings* shall be seeds which, before the removal of weed seeds and inert matter, consist of less than 75% agricultural seeds. Such screenings shall be designated according to the kind or kinds of seed present.

Local dealer may use the wholesaler's label for only ninety days provided it complies with the Montana labeling requirements.

Seed labels complying with the Montana Seed Law may be purchased from the Montana Grain Inspection Laboratory at \$1.00 per 100 or 2 cents each in lesser amounts.

4. *Hybrid Seed Corn* shall be seed of the first generation of a cross involving two, three or four different inbred lines of corn or their combinations, and shall be restricted to seed of single crosses, these in turn being defined as follows: 1. Single cross—The first generation of a hybrid between two inbred lines. 2. Three-way cross—The first generation of a hybrid between a single cross and an inbred line. 3. Double cross—The first generation of hybrid between two single crosses.

The name or number by which the hybrid seed corn is designated shall be plainly written or printed on the label of every lot, parcel or bag of seed corn sold as hybrid



FOR  
**POP CORN  
BIRD SEED  
FARM SEED  
GRASS SEED**  
see

**PRUNTY SEED & GRAIN CO.**

620 N. Second  
St. Louis, Mo.

In Our 68th Year of Seed Service

## "EMERGENCY" MEAT PRICES WIN NEW CUSTOMERS FOR SEEDSMEN!

### DOG OWNERS SWITCHING TO MARO-MEAT TO SAVE 1/2 ON MEAT BILLS!

SEEDSMEN everywhere are noticing a big increase in MARO-MEAT sales. The reason: high meat prices are driving more and more dog owners into seed stores for economical MARO-MEAT and the complete Chappel vitamin-fortified feeding plan. Maro-Meat gives dogs good, lean meat that's GOVERNMENT INSPECTED and enriched with extra vitamins.

#### Maro-Meat Sells

#### Other Chappel Products!

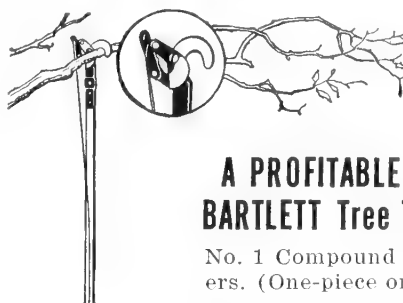
- \*Fresh Meat Ken-L-Biskit
- \*Economic Ken-L-Worth
- \*Vitamin-Fortified Ken-L-Meal
- \*Complete Canned Food Ken-L-Ration

All with Extra Vitamins Added!  
WRITE TODAY for the profit-making Chappel plan for selling well-known dog food line.

**CHAPPEL BROS. INC.**



515 Peoples Ave.  
Rockford, Illinois



### A PROFITABLE QUALITY LINE BARTLETT Tree Trimming TOOLS

No. 1 Compound Lever Pole Pruners. (One-piece or sectional poles.)

Drop forged cutting blade, scientifically designed for clean, close cuts, and the exclusive compound lever, make this tool easy to use. Sectional pole makes it easy to display and easy to SELL.

No. 44 Pole Saw is made with one-piece or sectional pole, with choice of several types of blade. No. 4402—16" blade illustrated.

Sold by leading hardware and seed dealers.

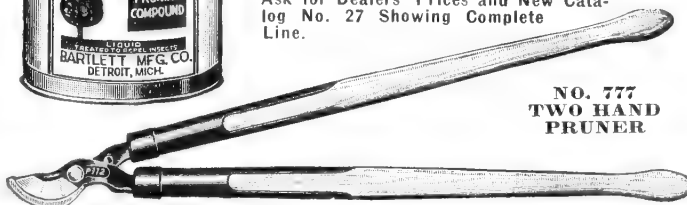


#### BARTLETT MFG. CO.

3013 East Grand Blvd., Detroit, Mich.

**TREE PAINT**—Special Dealer Display with 6—1/2 pts., 5 pts. & 4 qts. costs you only \$4.75. Also put up in 1 gal. cans and 5 gal. drums.

Ask for Dealers' Prices and New Catalog No. 27 Showing Complete Line.



NO. 777  
TWO HAND  
PRUNER

No.  
44  
Pole  
Saw



## The Original



Buy direct factory Deal. Costs \$9.60 delivered. Sells \$21.78.

6 doz. 25c size, 1/2 doz. 50c size, 78 post cards with free dog booklets and bags. Buy this deal from factory.



## ONE-SPOT COMPANY

Elkridge Maryland

Buy smaller amounts from your local wholesale druggist



## COTTON BAGS

### That Help You SELL SEED!

The right fabric for the purpose . . . the right design printed on the bags . . . the right price—you get these when you buy AMES sacks.

Leading bag users have been coming to us for cotton bags for 31 years.

Let us figure with you.

Write for Prices and Samples

AMES BAG MACHINE CO.  
1991 E. 66th St., Cleveland, O.

seed, in addition to the labeling requirements specified in Section 3594. The pedigree of hybrid corn and the name of breeder who developed each inbred line involved in the cross shall be filed with the Montana Grain Inspection Laboratory of

the Montana Agricultural Experiment Station at Bozeman by the wholesaler or vendor of every lot of hybrid seed corn before such is offered for sale in Montana for seeding purposes.

## NEBRASKA

### Act As Revised to 1940, Rules and Regulations to 1940

#### INFORMATION REQUIRED ON ANALYSIS TAG

(All tags to be approved by Department of Agriculture and bear printed words, "State of Nebraska approved Official Label.")

##### (A) Agricultural Seeds. Ten pounds or more.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Percentage of other crop seed (regulation not in the law.)
5. Percentage of inert matter (regulation not in the law.)
6. Name and number per ounce of noxious weed seeds present singly or collectively in excess of:
  - (a) One seed in each 5 grams. (See page 106, group A.)
  - (b) One seed in each 25 grams.
  - (c) One seed in each 100 grams.
7. Percentage of:
  - (a) Germination.
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test.
8. Where grown.
9. Name and address of vendor.

##### (B) Mixtures of agricultural seeds of not more than 2 kinds. Ten pounds or more.

1. That such seed is a mixture.
2. Name and percentage of each agricultural seed present in excess of 5% of total mixture.
3. Percentage of weed seed.
4. Percentage of other crop seed (regulation not in the law.)
5. Percentage of inert matter (regulation not in the law.)
6. Name and number per ounce of each noxious weed present singly or collectively in excess of one seed in each 15 grams.
7. For each kind of agricultural seed present in excess of 5% give:
  - (a) Percentage of germination.
  - (b) Percentage of hard seeds. (Regulation.)
  - (c) Month and year of test.
8. Where grown.
9. Name and address of vendor.

##### (C) Special Mixtures. Four ounces or more.

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in proportion of 5% or more of the total mixture.
3. Percentage of weed seed.
4. Percentage of inert matter.
5. Name and number per ounce of each noxious weed present singly or collectively in excess of one seed in each 15 grams.
6. Where grown.
7. Name and address of vendor.

##### (D) Vegetable seeds not included in law.

##### (E) Hybrid Seed Corn.

It shall be unlawful to sell any seed corn as "hybrid" unless it answers to the following description:

Hybrid seed corn shall be seed of the first generation of a cross involving two, three or four different inbred lines of corn or their combinations and shall be restricted to seed of single crosses, three way crosses and double crosses.

1. Single cross—The first generation hybrid between two inbred lines.
2. Three way cross—The first generation hybrid between a single cross and an inbred line.
3. Double cross—The first generation hybrid between two single crosses. The cross mentioned above shall be produced by cross fertilization, controlled either by hand or by detasseling under isolation at the proper time.

The cross mentioned above shall be produced by cross fertilization, controlled either by hand or by detasseling under isolation at the proper time.

#### NOXIOUS WEEDS

PROHIBITS SEED, GRAINS, OR FEED CONTAINING:

Bind weed—*Convolvulus arvensis*; Canada thistle—*Carduus arvensis*; leafy spurge—*Euphorbia esula*; puncture vine—*Tribulus terrestris*; perennial peppergrass—*Lepidium draba*; Russian knapweed—*Centaurea picea*.

GIVE NAME AND NUMBER PER OUNCE OF THE FOLLOWING WEEDS WHEN PRESENT SINGLY OR COLLECTIVELY IN EXCESS OF THE ALLOWANCE UNDER (A) 6; (B) 6; (C) 5.

Quack grass—*Agropyron repens*; Dodder—*Cuscuta* spp.; Wild oats—*Avena fatua* and charcoal or wild mustard—*Brassica arvensis*.

#### SEED LABORATORY AND TESTS

Seed Laboratory—In Department of Agriculture, State Capitol Building, Lincoln, Nebraska.

R. C. Kinch—Analyst.  
Tests—Not more than 5 samples for purity (including only one special mixture, bluegrass, red top, or orchard grass) and 5 samples for germination are free in any one month.

For additional tests, the charges are as follows:

All germination tests.....	\$ .25
Purity tests—special mixtures.....	2.00
bluegrass, redtop or orchard grass.....	1.00
cereals, sorghums, grasses and crops not otherwise listed.....	.50
Examination for noxious weeds.....	.25

#### ENFORCEMENT

Enforcement under Department of Agriculture & Inspection, Capitol Building, Lincoln, Nebraska.  
Allen G. Burke, director.

#### REGULATIONS

(April, 1940)

**Hard Seed.** In labeling legumes, the germination must be kept separate from the hard seeds and can only include the percentage of seeds that actually sprout and produce normal seedling. Hard seeds are to be shown under a separate heading. A total of the germination and hard seeds may be shown but this total must be designated as "total of germination and hard seeds" and never as "total" or "total live seed."

## NEVADA

### Law 1941

#### INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINERS

##### (A) Agricultural Seeds. One pound or more.

1. Commonly accepted name and bushel weight.
2. Percentage of other crop seeds.
3. Total number and kind of secondary noxious and common weed seeds present in each pound.
4. Percentage of inert matter.
5. Name and number per pound of each secondary noxious weed either singly or collectively present in excess of,

- (a) one seed in each 5 grams (see page 106 group A).
- (b) one seed in each 25 grams.
- (c) one seed in each 100 grams.

6. Commonly accepted name of each discernible disease and the percentage of seeds infected by such disease and percentage of spores, sporeballs or other propagating organs of fungi responsible for disease present.
7. Percentage of germination, together with the month and year tested.
8. No noxious weeds present.
9. Name and address of vendor.

##### (B) Mixtures of Alsike and Timothy, Alsike and White Clover, Red Top and Timothy, or Alsike and Red Clover. One pound or more.



# TWO OUTSTANDING PROFIT PRODUCERS



THE NEW MASTERS "HANDI-CART," "Successor to the wheelbarrow." Dealers throughout the country say the "HANDI-CART" has been one of their best sellers ever since its introduction by Masters a little over a year ago. And little wonder, for here is an item with instant appeal. Every home owner wants a "HANDI-CART" the minute he sets his eye on it.

**Its Real Merit, Backed by Our  
National Advertising, Makes  
It a Sensational Seller.**

The "HANDI-CART" ends backache and stooping. Front edge tips down so leaves, grass and rubbish may be raked in, and as easily dumped out. Durably made of strong sheet steel, with steel axles and rubber tires, attractively finished. So perfectly balanced that a child can handle it easily. Guaranteed to give lasting service and quality construction. Others imitate but there is only one original, genuine, plainly marked MASTERS "HANDI CART."

Imitations Are  
Being Made,  
Get the  
MASTERS  
for Quality

Two Sizes: 2½ and 3¾  
Cubic Feet.  
Reasonably Priced with Generous  
Profit Margin.  
Write for Description and  
Discounts

## MASTERS PERFECT FERTILIZER DISTRIBUTORS

**Unrivalled for Efficiency and Durability**

For years the Masters line of Distributors has been generally acknowledged as the finest implements of their kind available. They are unsurpassed for even distribution of any dry material; commercial fertilizer, grass seed, top dressing, sand, lime, salt, etc. With shut-off control and adjusting device on handle, waste of materials is fully eliminated. Sturdily built of best materials, they give years of satisfactory service to the owner. Every Masters Distributor, large, medium or small,

**Covers Every Inch of Ground but Leaves No  
Surplus Anywhere**

Hoppers and all moving parts are non-corrosive; rotary agitator insures free flowing and perforated Scatter Board sifts materials evenly. Larger sizes ideal for Estates, Parks, Golf Courses, Cemeteries, etc. Small machines for home use.



5 Sizes  
16 Inches  
to  
36 Inches  
Write  
for Prices

### MASTERS HOME LAWN DISTRIBUTOR

For Home Use: A strong, sturdy, practical machine for medium size lawns. It, too, has handle shut-off control, revolving agitator, five plates for spread adjustments. Rubber tires, 18" spread, capacity 30 lbs.

### MASTERS "BABY" LAWN DISTRIBUTOR

For Home Use: Spreads evenly; does beautiful job. Revolving agitator and handle shut-off control, 16" spread. 8½" steel wheels, capacity 15 lbs.

The Masters line of Distributors is in a class by itself. Superior design, materials and workmanship give longer life and greater efficiency. That is why we can positively guarantee customer satisfaction with any Masters product.

**WANTED:** Live Dealers for all Masters Guaranteed products. Their quality means added prestige and profit for every dealer.

Write for Further Information, Discounts, Etc.

**MASTERS PLANTER COMPANY**  
**MASTERS BLDG., BENTON HARBOR, MICH.**

BUYERS GUIDE

# ENGBRETSON SEED COMPANY



A Corner of Our Bent Grass Blending Floor,  
Showing a 28,000 Pound Blend of Blue Tag  
Astoria

*Growers*  
**ASTORIA BENT  
SEASIDE BENT  
FESCUES**  
*and Special Strains of Other*  
**FANCY GRASSES**  
**ASTORIA OREGON**

Harvesting, on One of Our Own Farms, the  
First Commercial Planting of Chewings Fes-  
cue for Seed Purposes in the United States



1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Total number and kind of secondary noxious and common weed seeds present in each pound.
4. Percentage of inert matter.
5. Name of each secondary noxious weed present either singly or collectively in excess of one seed in each 15 grams of such mixture.
6. Commonly accepted name of each discernible disease and the percentage of seeds infected by such disease and percentage of spores, sporeballs or other propagating organs of fungi responsible for disease present.
7. Percentage of germination of each kind of agricultural seed present in excess of 5%, together with the month and year tested.
8. No noxious weeds present.
9. Name and address of vendor.

**(C) Special Mixtures. One pound or more.**

1. That such seed is a special mixture.
2. Name and percentage of each kind of agricultural seed present in the proportion of 5% or more of the total mixture.
3. Total number and kind of secondary noxious and common weed seeds present in each pound.
4. Percentage of inert matter.
5. Name of each secondary noxious weed present either singly or collectively in excess of one seed in each 15 grams.
6. Commonly accepted name of each discernible disease present and the percentage of seeds infected by such disease and percentage of spores, sporeballs or other propagating organs of fungi responsible for disease present.
7. Percentage of germination of each kind of agricultural seed present in excess of 5% together with the month and year tested.

8. No noxious weeds present.
9. Name and address of vendor.

**(D) Vegetable included as agricultural seed. Label as under (A) above.**

**(E) White or Irish potatoes sold, offered or exposed for sale as Certified Seed. One pound or more.**

1. Variety.
2. Percentage of inert matter.
3. That the potatoes have passed field and bin inspections necessary to qualify as BLUE TAG, BLUE TAG single drop or RED TAG field inspected seed.

**PROHIBITS FROM SALE**

Seed containing noxious weed seeds. No tolerance allowed.

**NOXIOUS WEEDS. NO TOLERANCE ALLOWED**

Camel thorn—*Alhagi camelorum*; White top or Hoary cress—*Lepidium draba*, *L. repens*, *Hymenophyllum pubescens*; Klamath weed—*Hypericum perforatum*; Russian knapweed—*Centaurea repens*; Leafy spurge—*Euphorbia esula*; Sow thistle—*Sonchus arvensis*; Canada thistle—*Cirsium arvense*; Iberian star thistle—*Centaurea iberica*; Purple star thistle—*Centaurea calcitrapa*; Yellow star thistle—*Centaurea solstitialis*; Morning-glory—*Convolvulus arvensis*; Austrian field cress—*Rorippa austriaca*; Buffalo-bur—*Solanum rostratum*.

**SECONDARY NOXIOUS WEEDS**

Five-hooked bassia—*Bassia hyssopifolia*; Crabgrass—*Digitaria sanguinalis*, *D. ischaenium*; Charlock—*Brassica arvensis*; Fanweed—*Thlaspi arvense*; Sandbur—*Cenchrus pauciflorus*; Horsetail—*Solanum carolinense*, *S. elaeagnifolium*; Puncture vine—*Tribulus terrestris*; Dodders—

All species.

**SEIZURE OF SEED.** Whenever the state quarantine officer or his deputies receive information that agricultural seeds, or mixtures of the same, are being sold, offered or exposed for sale in violation of any of the provisions of this act, and are of the opinion that such seeds endanger the agriculture of the state, they may condemn and seize same. Any seed so condemned and seized shall be promptly re-cleaned, processed into feed or fertilizer, or completely devitalized, as ordered by the state quarantine officer and under his supervision.

**SCREENINGS OR CLEANINGS** from agricultural grain or agricultural seed as defined in this act, which is offered for sale or so returned to the owner, shall be ground, hulled or otherwise processed, so as to completely devitalize same in a manner approved by the state quarantine officer, before leaving the cleaning establishment.

**SEED LABORATORY AND TESTS**

College of Agriculture, Reno, Nevada.  
P. A. Lehenbauer—Analyst.

No charge will be made for tests for Noxious weeds and seed dealers unless the privilege is being abused.

Charges for tests for out of state dealers and individuals.

- (a) Corn, peas, beans, cereals and seed of similar type or mixtures of the same, 25c; retests 25c.
- (b) Alfalfa, clover, timothy, blue grass, red clover and seeds of similar type, 50c; retests, 50c.
- (c) For mixtures of seeds in (b), 75c; retests 75c.

**ENFORCEMENT**

Under State Department of Agriculture, O. Box 1027, Reno, Nevada.  
Division of Plant Industry, L. M. Burge.  
Supervising Inspector.

**NEW HAMPSHIRE**

**Law of 1921**

**INFORMATION REQUIRED ON ANALYSIS TAG**

**(A) Agricultural Seeds. One pound or more.**

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of germination together with the month and year tested.
4. Name and address of vendor.

**(C) Vegetable seeds—Turnips, rutabagas, and mangels are considered agricultural seeds (A). Vegetable seed and Flower seed in tied or**

sealed packages must be marked with the year tested.

**NOXIOUS WEEDS**

None.

**SEED LABORATORY**

**(B) Special mixtures. One pound or more.**

1. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
2. Percentage of germination of each kind of agricultural seed in excess of 5%, together

with the month and year tested.

3. Name and address of vendor.  
Agricultural Experiment Station.  
Department of Agronomy.  
Durham, New Hampshire.  
Mrs. Bessie G. Sanborn, Analyst.

**Tests**

Citizens may submit samples of agricultural seeds for test and analysis, subject to rules and regulations adopted by the Commissioner.

**ENFORCEMENT**

State Department of Agriculture.  
Concord, New Hampshire.  
Commissioner of Agriculture.

**NEW JERSEY**

**INFORMATION REQUIRED ON ANALYSIS TAGS**

**(A) Agricultural seeds. Ten pounds or more.**

1. Commonly accepted name.
2. Percentage of pure seed.
3. Number per pound of each noxious weed seed present in excess of one seed in each 5 grams or 90 seeds per pound.
4. Percentage of germination together with the month and year tested.
5. Name and address of vendor.

**(B) Mixtures. Every lot.**

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Percentage of foreign seeds (weed seeds and agricultural seeds not present in excess of 5%).
4. Percentage of inert matter.

5. Number of noxious weed seeds present in excess of one seed in each 5 grams or 90 seeds per pound.
6. Name and address of vendor.

**(C) Vegetable seeds. One pound or more.**

1. Name of seed.
2. Percentage of germination together with the month and year tested.
3. Percentage of inert matter if in excess of 5%.
4. Name and address of vendor.

**NOXIOUS WEEDS**

Quack grass—*Agropyron repens*; horse nettle—*Solanum carolinense*; dodder—*Cuscuta species*; Canada thistle—*Carduus arvensis*; Russian knapweed—*Centaurea picris*.

**SEIZURE.**

The State Seed Analyst, or his deputies, may seize and hold any lot, parcel or package of agricultural or vegetable seed found in violation of any provisions of this act or rules and regulations hereunder, until the law or such rules and regulations have been complied with,

or said violation otherwise disposed of as provided:

- (a) Worthless seed forfeited to the state, to be disposed of. Worthless seed shall be:
  1. Seed of no seeding or feeding value.
  2. Seed containing in excess of 1 noxious weed in every five grams of such seed or 90 per pound.
- (b) Seed not properly labeled shall be withheld until the proper analysis and label have been provided.
- (c) Seed found to be misrepresented as to quality shall be condemned and its sale prohibited.

**SEED LABORATORY AND TESTS**

Seed Laboratory, Agricultural Experiment Station, New Brunswick, New Jersey.  
Jessie G. Fiske, State Seed Analyst.  
Tests—Any citizen of the state may receive limited number of tests without charge.

**ENFORCEMENT**

Board of Managers of the New Jersey Agricultural Experiment Station.

# Seed Dealers CASH IN ON NITRAGIN QUALITY



(Above) NITRAGIN inoculation made the difference in this experimental station test field. Inoculated soybeans (right) are heavy, dark green and free of weeds. Uninoculated soybeans (left), because they are less vigorous and slower growing, have been smothered out by grass and weeds. Every planting of legumes—alfalfa, clovers, vetch, peas, etc.—should be inoculated.

Legume inoculant is one thing farmers must buy on faith. Inoculating bacteria cannot be seen without a powerful microscope, and there is no way to quickly demonstrate the effectiveness of different brands or strains. That's why Nitragin's extensive research and testing, and Nitragin's reputation for quality is of great value to farmers and dealers alike. For over 40 years farmers have seen NITRAGIN inoculation make bigger yields, increase protein content of legume hay and seed, and build soil fertility. The Nitragin Laboratories are the largest and most complete laboratories of their kind.

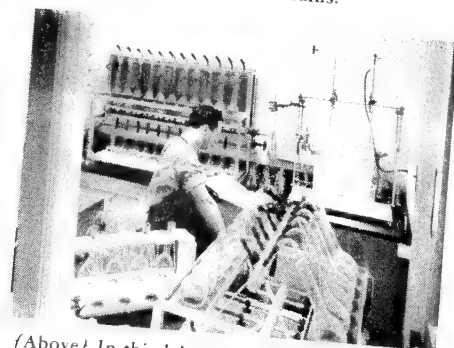
## ● MORE SALES, MORE PROFITS FOR NITRAGIN DEALERS

Nitragin is the oldest, best known and most widely used inoculant in America. Nitragin advertising builds business for seed dealers. Nitragin is advertised in nearly every leading farm paper and over a number of radio stations. Store signs, counter displays, etc. are furnished the Nitragin dealer. Sell NITRAGIN every time you sell clover, alfalfa, vetch, soybeans or other legume seed in 1942. If you are not already a Nitragin dealer, write—

THE  
NITRAGIN CO., INC.  
3830 N. Booth St., Milwaukee, Wis.



(Above) In this field, 39 strains of soybean bacteria are being tested. Nodulation studies and yields of hay and seed help Nitragin scientists select the most efficient strains.

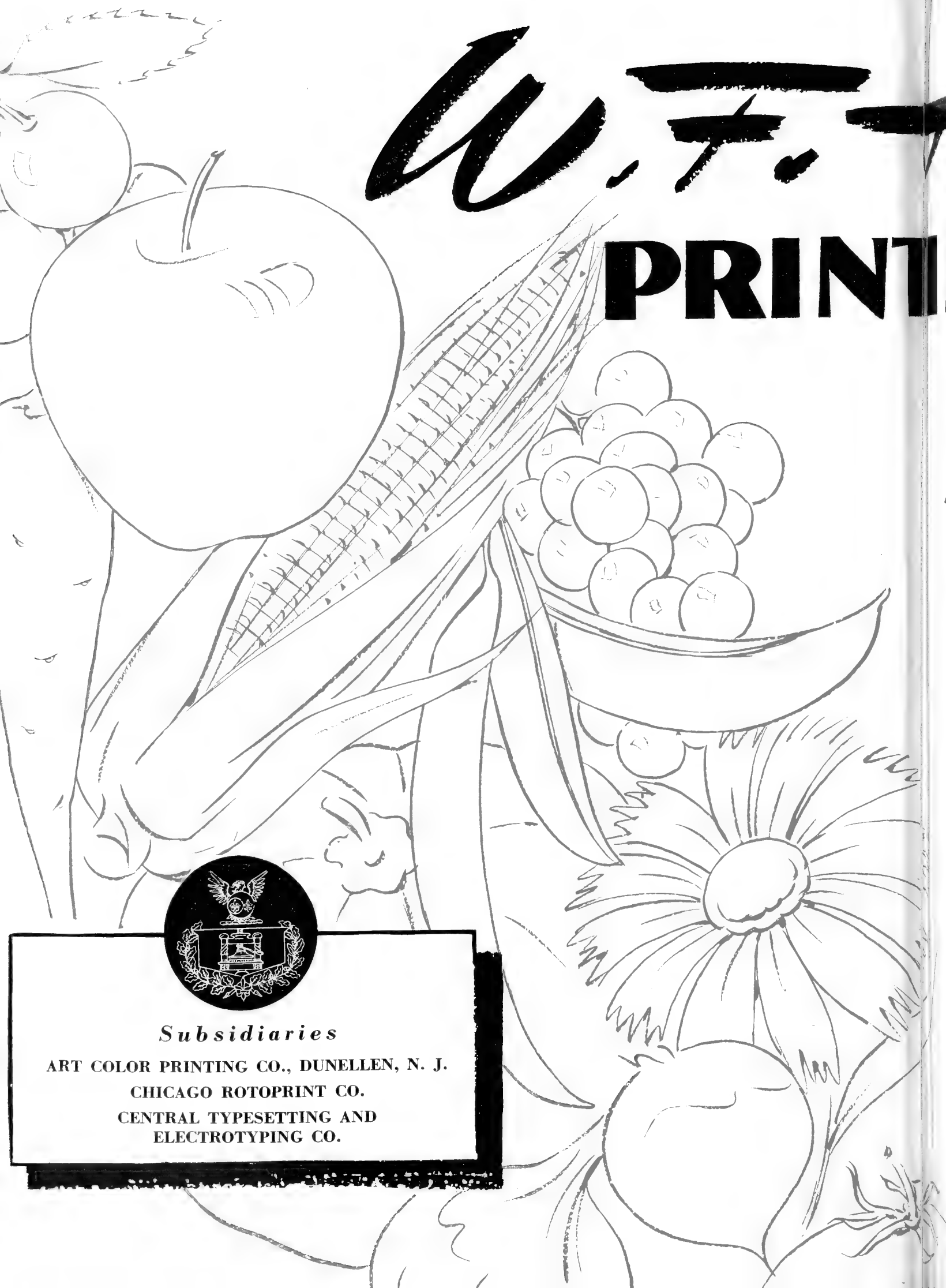


(Above) In this laboratory, Nitragin scientists determine how the protein content and feeding value of legume hay and seed is influenced by various strains of bacteria.

## YOUR PROTECTION . . . . .

The name NITRAGIN is a registered trademark put on every can for your protection. It identifies the only inoculants containing NITRAGIN'S highly effective strains of legume bacteria.

# ART PRINT



## *Subsidiaries*

ART COLOR PRINTING CO., DUNELLEN, N. J.  
CHICAGO ROTOPRINT CO.  
CENTRAL TYPESETTING AND  
ELECTROTYPING CO.

# *Hall*

## **PRINTING COMPANY**

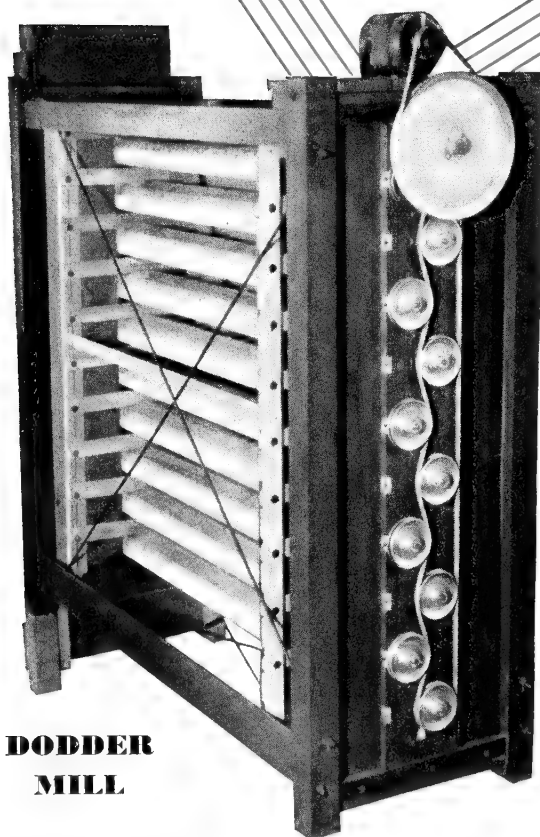
### **CHICAGO • NEW YORK**

*There must be a reason!* We have been the largest seed catalog printer in this country for nearly two decades . . . . Year after year we have produced from six to seven million seed catalogs of high quality *on time* . . . . With our modern equipment and experienced personnel we offer you an unexcelled seed catalog service . . . . We would appreciate an opportunity to help you plan your printing requirements.



THE  
ONE  
THAT MAKES  
More Profitable

Separations  
THAN ANY OTHER  
IN THE WORLD!



**DODDER  
MILL**

As a SALVAGE MILL, it is way out in front of everything. Given the work to do, it will pay for itself many times over with a minimum of operating expense.

We invite the closest investigation and comparison with any other Recleaner in the world.

“Our Mill paid for itself with the seed salvaged from the first lot of tailings run over it.” Worth thinking about, you will agree.

We make a Tester of convenient size, which should be in the hands of every buyer and Analyst. Equip your force with these little marvels, and eliminate all guess work in your purchases.

**W. A. RICE SEED CO.**  
JERSEYVILLE, ILLINOIS

# NEW MEXICO

## Law of 1919

### INFORMATION REQUIRED ON ANALYSIS TAGS

(Not less than 8 point Gothic caps)

#### (A) Agricultural seeds. One pound or more.

1. Commonly accepted name of kind and variety.
2. Percentage of all foreign seeds combined in such agricultural seeds.
3. Percentage of inert matter.
4. Percentage of each noxious weed present.
5. Percentage of germination of such agricultural seed together with the month and year tested.

6. County where grown if in this state.
7. Name and address of vendor.

#### (B) Mixture not mentioned.

#### (C) Vegetable seed not included under law.

#### NOXIOUS WEEDS

Quack grass; fanweed or French weed; mustard; wild oats; dodder.

#### SEED LABORATORY AND TESTS

Seed Laboratory, New Mexico State College of Agriculture and Mechanical Arts.

Department of Agronomy, at State College, New Mexico.

J. C. Overpeck, Professor Agronomy.

*Tests*—Residents of the state may send samples for tests to the New Mexico College of Agriculture which shall be reported upon free of charge not to exceed 6 tests in any calendar month.

#### ENFORCEMENT

Board of Regents of the New Mexico College of Agriculture and Mechanic Arts.

# NEW YORK

## Law of 1922 As Amended 1940

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER

#### (A) Agricultural seeds. Every lot.

1. The commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seeds. Prohibited if in excess of 1.5%.
4. Name and number per pound of each noxious weed present singly or collectively in excess of:
  - (a) one seed in each 5 grams.
  - (b) one seed in each 25 grams.
  - (c) one seed in each 100 grams.(See page 106, group A.)
5. Percentage of:
  - (a) Germination, exclusive of hard seeds.
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test.
6. Name and address of vendor.

#### (B) Mixtures. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Percentage of weed seeds. Prohibited if in excess of 1.5%.
4. Name and number per pound of each kind of noxious weed present singly or collectively in excess of one seed in each 15 grams.
5. For each kind of agricultural seed present in excess of 5% give:
  - (a) Germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds. (Regulation.)
  - (c) Month and year of test.
6. Name and address of vendor.

#### (C) Special mixtures. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in proportion of 5% of the total mixture.
3. Percentage of weed seeds. Prohibited if in excess of 1.5%.
4. Percentage of inert matter. Prohibited if in excess of 20%.
5. Name and number per pound of each kind of noxious weed present singly or collectively in excess of one seed in each 15 grams.

6. For each kind of agricultural seed present in excess of 5% give:
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds. (Regulation.)
  - (c) Month and year of test.
7. Name and address of vendor.

#### (D) Vegetable seeds. Each separate container.

1. Kind of seed and the variety.
2. Percentage of germination together with the year seed was tested (using type not smaller than 10 point).
3. Name and address of person or firm that packeted the seed and labeled the same.

#### (E) Flower seeds. Each separate container.

1. Kind of seed and variety.
2. Name and address of person or firm that packeted the seed and labeled the same.

#### (F) Tree and Shrub Seeds. Each separate container.

1. The kind of seed, and the variety.
2. The approximate percentage by weight of pure seed.
3. The approximate percentage of germination.
4. The year of collection of such seed.
5. The specific locality (state and county in the United States, or nearest equivalent political unit in the case of foreign countries) in which the seed was collected.
6. The name and address of the vendor of such seeds.

#### (G) Potatoes. Each separate container.

1. The variety or varietal type.
2. U.S. grade of the contents.
3. Name and address of grower or vendor.

#### NOXIOUS WEEDS

Quack grass—*Agropyron repens*; wild mustard—*Brassica arvensis* and other *Brassica* species; Canada thistle—*Cirsium arvense*; dodder—*Cuscuta* species; crabgrass—*Digitaria* species; docks—*Rumex* species.

#### "STOP SALE."

The commissioner or his authorized agents may remove from further sale or prohibit from sale, any unlabeled seed or any seed which is found

to be grossly unclean as to be unfit for seeding purposes until it has been properly recleaned, and may prohibit further sale or destroy after due process of law, seeds which are found to be so weak or low in germination as to be useless for seeding purposes.

#### SEED LABORATORY AND TESTS

Seed Laboratory.  
New York State Agricultural Experiment Station, Geneva, New York.  
M. T. Munn, State Seed Analyst.

#### ENFORCEMENT AND REGULATIONS

Enforcement—Department of Agriculture, Albany, New York. Holton V. Noyes, Commissioner of Agriculture.

Regulations—Use of word "certified" limited to seed which has been certified by an official of a State or Federal agency (part of the law). Misrepresentations prohibited (part of law).

"Commonly accepted name" shall mean the complete botanical designation commonly accepted by the public and seed trade as Leaming corn, Ithacan oats, Grimm alfalfa, not simply corn, oats and alfalfa.

Germination shall mean the percentage of seeds which are capable of sprouting promptly into normal seedlings. Hard seeds as found in legumes may be stated separately and shall not be added to the percentage of germination or used in such a way as to be misleading.

"Seed unfit for seeding purposes" shall be understood to mean those lots which contain noxious weeds in excess of the average commercial grades for that particular season or mixtures containing in excess of 1.5% of troublesome weeds or special lawn seed mixtures containing in excess of 20% of inert matter. These are subject to removal from sale.

Seed stocks showing less than one-half the so-called standard germination as accepted in seed control and seed trade practices shall be considered too low in germination and unfit for sale.

The term "hybrid" must not be used in connection with any kind of seed corn unless such stock is the seed of the first generation of a controlled cross between strains of different parentage and involving one or more inbred lines of corn or their combinations.

# NORTH CAROLINA

## Law of 1941, Regulations of 1941

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### Use North Carolina state tags.

#### (A) Agricultural seeds. Ten pounds or more.

1. Commonly accepted name of:
  - (a) Kind or
  - (b) Kind and variety.
2. Lot number or other identification number.
3. Percentage of purity.
4. Percentage of inert matter.
5. Percentage of weed seeds. Prohibit if in excess of 3%. Dallis grass and carpet grass 5%.
6. Percentage of other agricultural seeds.
7. Percentage of:
  - (a) Germination, exclusive of hard seed.
  - (b) Hard seed.
  - (c) Month and year of test. The test for germination shall have been completed within nine months prior to sale or exposure for sale.

8. Origin, if unknown it must be so stated.
9. Name and address of person labeling seed, or who sells, offers or exposes seed for sale.
10. Name and number per pound of secondary noxious weed seeds. (Regulation.) Requirements under 3, 4, 5, 6 and 10 shall not apply to cotton, corn and tobacco.

#### (B) Mixed agricultural seeds. Ten pounds or more.

Same as for unmixed seed, except that it must be called "mixed" or a "mixture" and the information required under 1, 3, and 7 shall be given for each agricultural seed present in excess of 5%.

#### (C) Vegetable seeds. Ten pounds or more.

1. Name of kind and variety.
2. Seed which germinates equal to or above the standard last established, the words "NORTH CAROLINA STANDARD" may be used in lieu of the actual germination. For standards see page 102.

3. For seed which germinates less than the standard last adopted give:
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds.
  - (c) Month and year of test. The test for germination shall have been completed within nine months prior to sale or exposure for sale.

- (d) The words "BELOW STANDARD."
4. Name and address of person labeling seed, or who sells, offers or exposes seed for sale.

#### (D) Vegetable seeds.

In containers of less than ten pounds which germinate less than the standard last adopted, shall show the actual germination.

#### PROHIBITS THE SALE OF—

1. Seed, unless the germination test shall have been completed within a nine month period.
2. Seed containing Primary noxious weeds subject to the tolerances prescribed in the rules and regulations.

# SWEET CLOVER ALFALFA

## BROMUS INERMIS

## CRESTED WHEAT GRASS

## SLENDER WHEAT GRASS

## WESTERN WHEAT GRASS

## TIMOTHY

## ALSIKE CLOVER

## GARDEN SEEDS

In Bulk and Packets

# Magill & Co.

Since 1887 Operating

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NO. DAKOTA

# MOORE

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## FLOWER

## VEGETABLE

# SEEDS

A WHOLESALE BROKERAGE  
SERVICE THAT IS JUST A  
LITTLE DIFFERENT

Correspondence invited with grow-  
ers and wholesalers considering a  
profitable brokerage connection.

37 years' personal experience in the  
Cincinnati market

## CHARLES R. MOORE

Chamber Commerce Bldg.

CINCINNATI, OHIO

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3. Small grains (wheat, oats, rye and barley) containing more than 100 Secondary noxious weed seeds per pound.
4. Seed containing more than 2,500 dodder per pound.
5. Seed containing in excess of 3% of weed seeds except carpet grass and Dallis grass which shall not exceed 5%.

## NOXIOUS WEEDS

PRIMARY NOXIOUS WEEDS. PROHIBITED.  
Johnson grass—Sorghum halepense; bindweed—Convolvulus arvensis.

SECONDARY NOXIOUS WEEDS.

Wild onion—Allium vineale; corncockle—Agrostemma githago; cheat—Bromus secalinus; dodder—Cuscuta spp.

"STOP SALE." The Commissioner of Agriculture or his authorized agents shall issue "Stop Sale" orders which shall prohibit further sale of any lot of seed which he has reason to believe is being offered or exposed for sale in violation of any provisions of this act, until the law has been complied with, or said violation otherwise legally disposed of.

WITHDRAWAL FROM SALE. The Commissioner of Agriculture may withdraw from sale seed not having a reasonable viability or that are extremely impure, or that are of distinct low quality otherwise, notwithstanding they may be properly labeled, when such withdrawal is in the interest of normal crop production.

## SEED LABORATORY AND TESTS

Seed Laboratory, Department of Agriculture, Raleigh.

J. W. Woodside, Botanist.

Tests—Free to citizens of the state. To non-residents the fee for purity 25 cents and for germination 25 cents.

## ENFORCEMENT

Enforcement—Department of Agriculture, Raleigh, North Carolina.

D. S. Coltrane, Assistant to Commissioner.

## Licensing.

Each seed dealer selling, offering or exposing for sale in, or, for export from this state, of any agricultural, vegetable or flower seed, other

than packet or package seeds, for seeding purposes, shall register with the Department of Agriculture the name of such dealer, and shall on the first of January annually obtain a license paying:

- (1) \$25.00 if a wholesaler or a wholesaler and retailer
- (2) \$10.00 if a retailer with sales in excess of \$100.00 for the calendar year. Each branch of any wholesaler or retailer shall obtain a retail license.
- (3) \$1.00 if a retailer at a permanent location with sales not in excess of \$100.00. (Owners or operators of harvesting or threshing machines operating on a share basis and selling only seed obtained in this manner shall be exempt from obtaining a license.)

## Stamps.

Inspection stamps of \$1.00 shall be purchased from the Department of Agriculture for each 72 dozen packets or packages of vegetable or flower seeds or portion thereof.

- (1) Stamps shall be secured by the producer, grower, jobber or other person, firm or corporation shipping such seed into the state before shipment to agent or retailer, and furnished to said agent or retailer for attachment.
- (2) Producer, grower or jobber or other person, firm or corporation, residing within this state shall secure said stamps and attach to the display case before said seed is offered for sale.
- (3) When package seed of one kind or variety are offered or exposed for sale in boxes or display cases not in excess of three dozen packages, a ten cent stamp shall be purchased and attached to said box.

## Tags.

- (1) A North Carolina seed analysis tag purchased from the Department of Agriculture for 1 cent each shall be attached to each container of 10 pounds or more. If shipped into the state, said tag shall be secured by person shipping such seed.
- (2) Seed containing more than 500 dodder seed per pound shall be designated as "Low Grade Seed" and shall be labeled with a red tag.

## NORTH DAKOTA

Act of 1931 Regulations of 1939, Amended 1941

## INFORMATION REQUIRED ON ANALYSIS TAGS

### (A) Agricultural seeds. Every lot.

1. Commonly accepted name.
2. Lot number or other lot identification.
3. Percentage of purity.
4. Percentage of inert matter.
5. Percentage of weed seeds.
6. Percentage of other agricultural seeds.
7. Percentage of germination, together with the month and year of test.
8. Where grown—state and county in case of corn, and state in case of alfalfa and clovers.
9. Name and address of vendor.
10. Seed containing noxious weed seeds shall be labeled to show their presence if present, singly or collectively, in excess of: "Prohibited Noxious Weed Seeds"—1 seed in 90 grams. "Primary Noxious Weed Seeds"—1 seed in 20 grams.

### (B) Mixtures of two kinds. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind present in excess of 5% of total mixture.
3. Name and number per pound of each kind of noxious weed present singly or collectively in excess of one seed in each 15 grams.
4. Percentage of germination of each kind present in excess of 5% together with the month and year tested.
5. Where grown, state and county in case of corn, and state in case of alfalfa and clover.
6. Name and address of vendor.

### (C) Special Mixtures. Every lot.

1. That such seed is a mixture.
2. Name of each seed which is present in proportion of 5% or more of the total mixture
3. Percentage of weed seed.
4. Percentage of inert matter.
5. Name and number per pound of each kind

of noxious weed present singly or collectively in excess of one seed in each 15 grams.

6. Name of county and state where each variety of seed corn in mixture was grown.
7. Name and address of vendor.

### (D) Vegetable and Flower Seed in lots five pounds or less are excluded from label requirements.

## NOXIOUS WEEDS

### PROHIBITED NOXIOUS WEEDS

Leafy spurge (Euphorbia esula).  
Field bindweed (Convolvulus arvensis).  
Perennial peppergrass or White top (Lepidium draba, L. repens, Hymenophyssa pubescens).

Russian knapweed (Centureau picris).

### PRIMARY NOXIOUS WEEDS

Quack grass (Agropyron repens).  
Canada thistle (Cirsium arvense).  
Perennial sow thistle (Sonchus arvensis).  
Dodder (Cuscuta spp. except coryli).

## SEED LABORATORY AND TESTS

Seed laboratory, State College Station, Fargo.  
Miss Edith Higgins, Analyst.  
Any resident of North Dakota may have three free tests per year, additional test fees are:

### Purity Tests

Clovers, alfalfa, cereals, flax, corn beans, peas, etc .....\$0.50  
Grass seeds, or mixtures of grass and/or clover seeds .....\$1.00

### Germination Tests

Each test .....\$0.50

### Fees for non-residents

Purity .....\$1.50  
Germination .....1.00

## ENFORCEMENT AND REGULATIONS

Enforcement is under  
State Seed Dept., State College Station,  
Fargo.

R. C. Hastings, Seed Commissioner.

# MODERN SCIENCE *Rings* THE REGISTER!



## PREE-PLANT

Thompson's PREE-PLANT is a hormone-B-Complex vitamin powder. (Contains also an organic nitrogenous

compound.) Simple to use; it's merely DUSTED on! Hastens germination and more rapid, sturdier root growth in flower and grass seeds and bulbs. Effective in the field—and in sales!

RETAIL PRICES: 2 oz. \$1  
1 lb. \$5



## REE-ROOT

A newly developed hormone-B-Complex vitamin treatment for rapid rooting of cuttings. Two ozs.

treats thousands of cuttings. Packed in two formulas: (1) for sensitive plants; (2) for the more hardy, woody plants.

RETAIL PRICES: No. 1—2 oz. 75c  
1 lb. \$5  
No. 2—1 1/2 oz. \$1  
1/2 lb. \$4



## TRANSPLANT TABLETS

A "lifesaver" in transplanting seedlings, plants, shrubs, trees. Counteracts root shock and wilt-

ing... induces rapid, healthy recovery. A combination of plant hormones with Vitamin B Complex. Every gardener needs it. Two tablets make one gallon.

RETAIL PRICES: 40 tabs. \$50  
100 tabs. \$1 500 tabs. \$4

*Thompson's*

## VITAMIN B<sub>1</sub> PLUS PELLETS

Always a best seller. In the original pellet form for ready use. Containing with B<sub>1</sub>, all the known factors in Vitamin B-Complex. • As a "companion piece," sell too, Thompson's VITAMIZER. Attaches to garden hose, automatically mixing solution. RETAILS with 100 B<sub>1</sub> plus Pellets (combination offer) for \$1.89.



## Thompson research wins you new profits with these fast-selling items

DEVELOPED IN THE LABORATORY • FIELD TESTED  
HANDILY PACKAGED • EASY TO USE • PRICED TO SELL

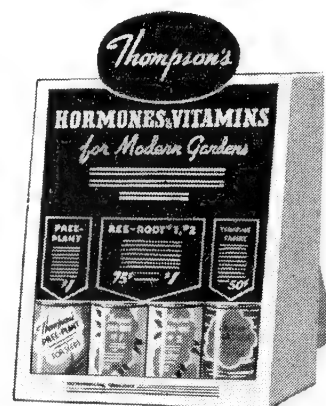
Science and merchandising go to work for you in this modern line of hormone-vitamin products. Here is "Packaged Research" your customers want... new, scientific aids to better gardening. Simple to use... easily handled... readily sold. Push them. They'll pay you a handsome return! And note: Thompson guarantees supply and prices for the coming year. Order your stocks from your nearest Thompson jobber now!

### NO "BURNING" OF PLANTS WITH THOMPSON PRODUCTS!

Modern research shows the vitamins work with the hormones in stimulating growth... preventing the tendency of hormones—when used alone—to "burn" plant tissues. A strong sales point with your customers.

### NEW "DISPENSER" CARTON MAKES ATTRACTIVE COUNTER DISPLAY!

Thompson's new hormone-vitamin package does double duty for you—as a carton, as an effective counter "salesman." Keep it up front; it helps you sell more with less effort! Contains 1/4 doz. of each product.



Make selling easier with

*Thompson's*  
**FREE ELECTRO SERVICE**

**For Your Catalog • For Local Advertising**

These are your ads... for your profit. Use them in your catalogs—either separately or together to make a page. Ideal for local newspaper advertising too! Just add your store name (signature plate or type-set) and you have a complete sales message in each one. Compactly designed to save space; "big" in sales punch to attract new customers.

WE FURNISH AS MANY AS YOU WILL USE WITHOUT CHARGE

• Send for Free Broadside Showing Complete Series of Advertisements.



**WM. T. THOMPSON CO. Horticultural Division**

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Los Angeles, California**

# TURF GRASSES

Our specialty is domestic and imported grasses for use in lawn mixtures. We shall be glad to quote at any time.

When in a hurry phone LD-66

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COMPANY  
Marysville, Ohio

## GRAIN WOOL

# SEED

DONLEY'S

Super-Cleaned

FIELD

and

LAWN SEED

J. L. DONLEY  
& BRO.

ASHLAND

OHIO

5. As "Yellow Blossom TYPE Sweet Clover" provided the mottled seed content is in excess of 1%. Such mottled seed will be included in the percentage of purity. Any other sweet clover labelled as a specific variety, such as Artic, Alpha, or Madrid, shall conform to the characteristics of that variety.

### HYBRID CORN

#### Regulatory Announcement No. 17

- a. The use of the term "hybrid", in connection with seed corn offered or exposed for sale, shall be restricted to first generation stock of a cross, the parentage of which involves one or more inbreds.
- b. An *Inbred Line* shall consist of a line of corn that has been developed as a result of about five generations of controlled self-fertilization and selection, and/or when the inbred line is relatively uniform and homozygous.
- c. A *Foundation Hybrid* (single cross) shall consist of the first generation of a hybrid between two inbred lines to be used in the production of hybrids containing more than two inbred lines, and/or an advance generation single cross (hybrid) which has been grown under controlled conditions, certified and designated to be used as a foundation hybrid.
- d. A *Commercial Hybrid* is the first generation cross to be planted for the production of feed or for any other commercial or farm use except for seed. It may be any one of the following:
  - (1) A *Double Cross*—the first generation of a cross between two foundation hybrids (single crosses).
  - (2) A *Three-Way Cross*—the first generation of a cross between a foundation hybrid (single cross) and an inbred line.

- (3) A *Single Cross*—when the single cross is to be used for commercial production and not for the production of double or three-way crosses.
- (4) A *Top Cross*—the first generation of a cross between an inbred line and an open-pollinated variety.

The State Seed Commissioner is authorized to be guided by such rules as have been adopted by the Corn Certification Committee of the International Crop Improvement Association and by suggestions received from the North Dakota Agricultural Experiment Station. The Seed Commissioner is authorized to conduct all work in connection with the registration and certification of hybrid corn on a cost basis.

#### FEES

- a. Field inspection fee for each field: First acre, \$3.00; each additional acre up to 25 acres, 75 cents per acre; and each additional acre OVER 25 acres, 50 cents per acre.
  - b. Certification tags will be supplied at the rate of one and one-half cents per bushel.
  - c. The entire acreage of inbred lines and foundation hybrids (including pollen parent) will be considered as one combination for the purpose of determining charges on these. However, the charge for these will equal one and one-half times the amount indicated in the above table.
- The vendor of hybrid seed corn shall be responsible for there being on file with the State Seed Commissioner an affidavit giving the name or number by which it is to be sold, and further that the inbreds involved in the hybrid are the same each time the hybrid is so designated.
- In addition to labeling requirements ((A) above), every lot, package, parcel or bag of seed corn sold as "Hybrid" corn shall have on the tag the name and/or number by which the hybrid is designated.

## OHIO

### As Amended 1937

#### INFORMATION REQUIRED ON ANALYSIS TAGS

##### (A) Agricultural seeds. Every lot.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number per ounce of each kind of noxious weed present singly or collectively in excess of (Prohibit 3% or over)
  - (a) one seed in each 5 grams.
  - (b) one seed in each 25 grams.
  - (c) one seed in each 100 grams.
 (See page 106, group A.)
5. Percentage of:
  - (a) Germination, exclusive of hard seeds.
  - (b) Hard seeds.
  - (c) Month and year of test. Test date shall not be over 300 days old. Tolerance of not over 10% allowed.
6. Where grown on red clover and alfalfa.
7. Name and address of vendor.

##### (B) Mixtures. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture. (If any agricultural seed named on the label is present in amount less than 5%, the percentage of such seed shall be given.)
3. Percentage of weed seeds. (Prohibit 3%.) (If inert matter exceeds 15% sale is prohibited.)
4. Name and number per ounce of each kind of noxious weed seed present singly or collectively in each 15 grams.
5. For each kind of agricultural seed named on the label give:
  - (a) Percentage of germination, exclusive of hard seed.
  - (b) Percentage of hard seed.
  - (c) Month and year of test. Test date shall not be over 300 days o.d. Tolerance of not over 10% allowed.

##### (C) Vegetable seeds.

1. In containers of less than one pound, if germination is equal to or above germination standards. (See page 102.)
  - (a) Kind and variety.
  - (b) Name and address of person, firm or corporation responsible for labeling on the container.
2. In containers of one pound or more and container of less than one pound when the seed germinates less than the Ohio germination standard. (See page 102.)
  - (a) Kind and variety.
  - (b) Percentage of germination with the month and year of test.
  - (c) Name and address of person, firm or corporation responsible for labeling on the container.

3. Packet seed prohibited if germination is below Ohio standard. (See page 102.)

##### (D) "Certified" limited to seed certified by an approved agency—certification tag attached to container must show

1. Grower's name and address or his number registered with the Department of Agriculture.
2. Name of certifying agency.
3. The state of production.
4. Such other information as pertains to certification.

#### Prohibits the sale offering or exposing for sale of—

1. Agricultural seed containing in excess of 3% of noxious weeds.
2. Seed with a germination date test of more than 300 days old prior to date of sale.
3. Packet seed prohibited if germination is below Ohio standard.
4. Mixtures of agricultural seed containing over 15% inert matter.

#### NOXIOUS WEEDS

Canada thistle—*Cirsium arvensis*; Wild garlic—*Allium vineale*; quack grass—*Agropyron repens*; dodder—*Cuscuta* species; plantains—*Plantago* species (includes buckhorn); wild carrot—*Daucus carota*; ox-eye daisy—*Chrysanthemum leucanthemum*; corn cockle—*Agrostemma githago*; docks—*Rumex* species (including *Rumex acetosella* or sorrel); chicory—*Cichorium intybus*.

#### SEED LABORATORY AND TESTS

State Department of Agriculture.  
Division of Plant Industry.  
Columbus, Ohio.

C. N. McIntyre, State Seed Analyst.

Free tests—purity and germination 4 samples of red clover or similar seed, two samples of red-top or similar seed or one sample of lawn mixture or five germinations of vegetable seeds. Additional samples will be charged at the rate of 25 cents for all germinations.  
Purity tests—clovers, alfalfa timothy, etc. \$.50  
grasses as bluegrass, redtop.. 1.00  
mixtures of lawngrass..... 2.00

#### ENFORCEMENT

Enforcement—Department of Agriculture.  
Division of Plant Industry.  
Columbus, Ohio.

Stanley E. Laybourne, Chief.  
License—Each person or company shall pay a license fee to the Director of Agriculture for each separate place of business, according to quantities sold.

Quantities not exceeding 8 ounces for each \$25.00 wholesale value —\$.25 tax stamp



One of the Most Beautiful and Consistent "Profit-Making" Displays on Seed Dealer's Counter



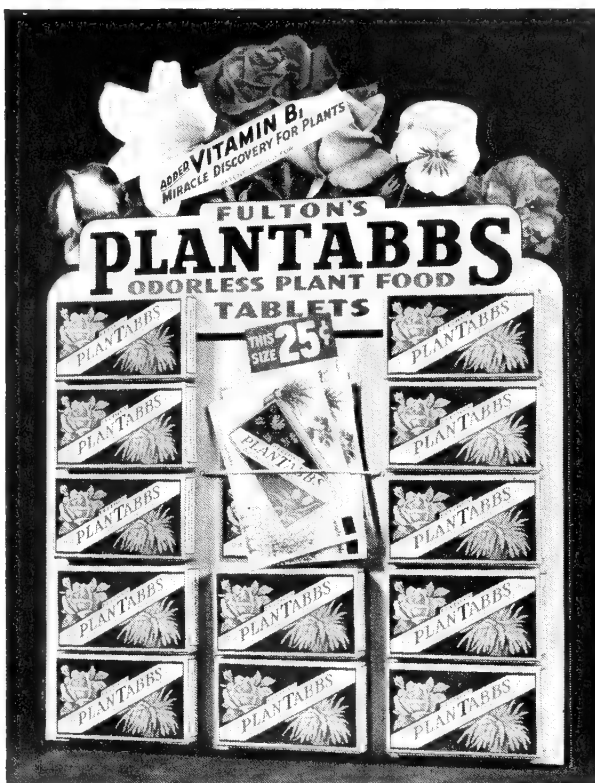
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**No. 1 TABLET  
PLANT FOOD**

Display of this Plantabbs "Self-Seller" containing a dozen 25c boxes is quick way to profit . . . a year around it; equally effective for indoor plants and garden flowers.

Nationally advertised in *Life*, *Better Homes and Gardens*, *Hollands*, *Sunset*, *Christian Science Monitor*, and other powerful publications.

Write for our Seedsmen's Proposition



## SNELSON SEED CO.

Savannah, Ga.  
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Let Us Quote You on Any of the Following

Austrian Winter Peas	Cowpeas	Peanuts
Beardless Barley	Crotalaria	Rape
Beggarweed	Dallis Grass	Redtop
Bene	Feterita	Reed Canary Grass
Bermuda Grass	Field Peas	Rescue Grass
Cane	Grohoma	Rhodes Grass
Clover	Hegari	Rice
Alyce	Johnson Grass	Ryegrass
Black Medic	Kafir Corn	Seed Grains
Burr	Kudzu	Sesbania
Crimson	Lespedeza	Sorghums
White	Lupines	Soybeans
Chufas	Millet	Sudan Grass
Corn, field	(Cattail and Brown Top)	Sunflower
Cotton	Milo Maize	Velvet Beans
(sea island, long staple only)	Mung Beans	Vetch

**Wholesale Field and Grass Seed**

## Reliable FARM SEEDS



Carpet, Dallis, Rye, Other Grasses. Crimson, Hop, Lappacea, White Dutch, Other Clovers. DPL Cotton, Crotalaria, Hybrid Corn, Lespedeza, Sesbania, Small Grains, Soybeans, Austrian Peas, Vetch, Wild Winter Peas, Ceresan, Seed Treaters, Etc.



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# OKLAHOMA ALFALFA SEED

U. S. Verified Origin and Okla.  
Approved Origin

Oklahoma Approved  
Origin Tagged Alfalfa  
Seed meets all require-  
ments of AAA Program  
in North Central States.

Truck lots—Carlots

Growers of Bermuda and Sweet

Spanish Onion plants

Growing Station—Crys'al City, Tex.

## Keller Seed Store

(Established 1901)

SHAWNEE, OKLA.

# Wholesale FIELD Seeds

## SPECIALTIES

Alsike  
Red Clover  
White Clover  
Ladino Clover  
Yellow Hop Clover  
Black Medic  
Hairy Vetch  
Spring Vetch  
Hungarian Vetch  
Austrian Peas  
Crimson Clover  
Chewings Fescue  
Domestic Rye Grass  
Perennial Rye Grass  
Seaside Bent Grass  
Astoria Bent Grass  
Oregon Highland Bent  
Reed Canary Grass

## JENKS WHITE SEED CO.

SALEM OREGON

Quantities not to exceed 10  
pounds for any container...\$2.50  
Quantities up to and exceeding  
10 pounds for any container...\$5.00

### REGULATIONS

*Hard seeds* must not be added to sprouted seed and designated as "total germination" or "total viable seed" or "total live seed."  
*"Other Crop Seeds"* must not be added in with the total purity percent on the label.  
The word "Hybrid" as applied to field, sweet or popcorn, shall not be used unless the "hybrid" corn represents the first generation of a cross involving (one, two, three or four) dif-

erent inbred lines of corn or their combinations.  
*Hybrid Seed Corn*—The word "Hybrid" as applied to field, sweet or popcorn, shall not be used unless the "hybrid" represents the first generation of a cross involving one, two, three or four different inbred lines of corn or their combinations. In addition to labeling requirements (A) every lot, package, parcel or bag of seed corn sold as hybrid shall have plainly written or printed on the tag or label the name and number by which the hybrid is commonly designated. The vendor shall be responsible for registering with the Director of Agriculture, the pedigree of the hybrid and name of person, firm or corporation who developed each inbred involved in the cross.

## OKLAHOMA Statutes of 1931

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### (A) Agricultural Seeds. Every lot.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name of each kind of noxious weed seed present singly or collectively in excess of:
  - (a) One seed in each 5 grams.
  - (b) One seed in each 25 grams.
  - (c) One seed in each 100 grams.
5. Percentage of germination, together with the month and year tested.
6. Name of state and county where grown; if unknown mark "origin unknown."
7. Name and address of vendor.

#### (B) Mixtures. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name of each noxious weed seed present singly or collectively in excess of one seed in each 15 grams.
6. Percentage of germination of each kind of agricultural seed present in excess of 5%, together with the month and year tested.
7. Name of state and county where grown. If unknown, label "origin unknown."
8. Name and address of vendor.

#### (C) Vegetable seeds.

The term agricultural seeds includes stock beets, sugar beets, cabbage, tomatoes, onions, and all other field crops grown in Oklahoma; hence, all vegetable and truck seeds sold in quantity would come under labeling requirements (A). Small packets are not included under the law.

### NOXIOUS WEEDS

(February, 1940)

Bindweed (*Convolvulus arvensis*)  
Blueweed (*Echium vulgare*)  
Bracted plantain (*Plantago aristata*)  
Buckhorn (*Plantago lanceolata*)

### SEED LABORATORY AND TESTS

State Seed Laboratory, State Board of Agriculture, Oklahoma City, Oklahoma.  
Parks A. Yeats, State Seed Analyst and Plant Quarantine Officer.  
*Tests*—Each resident allowed 8 free samples in one year. Additional tests will be 50 cents for a complete test and 30 cents for either purity or germination. Non-resident fee 50 cents for each sample.

### ENFORCEMENT AND REGULATIONS

Enforcement under State Seed Analyst and Quarantine Officer who is responsible to the State Board of Agriculture.  
A quarantine regulation was issued August 1935, on all field seeds entering Oklahoma unless tagged with a complete label as (A) and accompanied by a Waybill showing the names of the consignor and consignee, the state and town of origin and the point of destination.  
Cotton seed—To ship cotton seed into Oklahoma, an affidavit of location where grown and freedom from communicable disease must be filed with the Board of Agriculture—Permits for shipment charged at rate of 25 cents for

## OREGON Law 1937

### INFORMATION REQUIRED ON ANALYSIS TAGS

#### (A) Agricultural or turf seed. Tag each lot. Not less than 8 point type.

1. Commonly accepted name.
2. Percentage by weight of pure seed.
3. Percentage by weight of weed seed.
4. Percentage by weight of other crop seeds.
5. Percentage by weight of inert matter.
6. Name and number per pound of noxious weeds present.
7. Percentage of germination together with year tested.
8. Percentage of hard seed when present.
9. Country or state where grown.
10. The name and address of the vendor of such seeds.

#### (B) Mixtures. Tag each lot.

1. That such seed is a mixture.
2. The name and per cent of each kind present in excess of 5% by weight of the total.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number per pound of each noxious weed present.
6. Percentage of germination of each kind present in excess of 5% by weight of the total, together with the year tested.
7. The name and address of vendor.

#### (C) Vegetable seeds.\* Each separate container.\*\*

1. Kind and variety of seed.
  2. Percentage of germination together with year tested, or in lieu of this requirement the words "Oregon standard germination" may be used, when the percentage of germination is equal to or greater than the established Oregon standards. (See page 102 for standards.)
  3. Name and number per pound of each noxious weed seed.
  4. Name and address of person or firm who put up or packeted the seeds and labeled same.
- \*Beets, Mangels, Turnips, and Rutabagas are classed as agricultural seeds; hence, lots over ½ pound should be tagged as such.  
\*\*Exceptions which do not need to be tagged:  
(a) Certified or registered seed.  
(b) Vegetable varieties of Peas, Beans, Corn and seed of similar size in packages weighing less than 5 pounds.  
(c) Other vegetable seeds in packets weighing not more than ½ pound each.

### NOXIOUS WEEDS—Give Name and Number Per Pound

Group I—Prohibited.

White tops—*Lepidium draba*, *Lepidium repens*, *Hymenophyllum pubescens*; Russian knap-

weed—Centaurea picris; leafy spurge—Euphorbia esula.

#### Group II

Prohibited when in excess of one in 50 grams of Alfalfa, Rye Grass and other seeds approximately the same number per pound, or when in excess of one in 25 grams of Alsike, Orchard Grass or other seed of approximately the same number per pound. Dodders—Cuscuta spp.; Canada Thistle—Cirsium arvense; Johnson grass—Sorghum halepense; Quack grass—Agropyron repens.

#### Group III

Prohibited when in excess of four seeds in 5 grams of Red Clover, Sweet Clover or Alfalfa.

Buckhorn plantain—Plantago lanceolata.

#### Group IV

Wild morning glory or bindweed—Convolvulus arvensis; blue lettuce—Lactuca pulchella; death weed or sumpweed—Iva axillaris; Austrian field cress—Radicula austriaca; perennial sow thistle—Sonchus arvensis; puncture vine—Tribulus terrestris; toad flax—Linaria vulgaris; alkali mallow—Sida hederacea; corn cockle—Agrostemma githago; Australian burnweed or fire weed—Erechtites prenanthoides; star thistle—Centaurea melitensis; Centaurea solstitialis; Centaurea iberica; St. Johnswort or goat weed—Hypericum perforatum; wild garlic—Allium vineale; ox-eye daisy—Chrysanthemum leucanthemum; cow cockle—Vaccaria pyramidata.

Group V—Weeds noxious only in turf seeds and lawn and turf mixtures.

Field madder—Sherardia arvensis, spotted catsear—Hypochaeris radicata; dandelions—Leontodon spp.; chickweed or big mouse ear—Cerastium vulgatum; yarrow—Achillea millefolium; rippleseed plantain—Plantago major.

"STOP SALE." The Director of Agriculture shall seize any lot or parcel of agricultural, turf or vegetable seeds possessed, sold, offered or exposed for sale for planting purposes that appear to be in violation of any provisions of this act and to hold same until it is determined that the provisions of this act are being complied with. When any seed is found in violation of this act the Director or his assistants shall give written notice of such violation to the owner or person in possession of such seed and may set a time and method by which it may be relabeled, reconditioned or disposed of. If after receiving such notice, the seeds are not relabeled, reconditioned or disposed of within the given specified time, in accordance with the provisions of this act, the enforcing officer shall file a complaint in any justice court or court of competent jurisdiction. The seed may be condemned and destroyed or disposed of, or released upon such condition as the court may impose to insure that such seeds will not be sold, offered, or exposed for sale, in violation of this act.

SCREENINGS AND OTHER MATERIAL, removed in the cleaning or processing of agricultural, turf and vegetable seeds containing any noxious weed seeds shall be destroyed or ground, or treated in a manner or by a method, established and approved by the director, that will destroy the viability of all noxious weed seeds therein. Screenings or other material containing noxious weed seeds may be moved under permit issued by the director or his duly designated deputies, to another place or conditioning plant for further cleaning or processing.

## LABORATORY AND TESTS

Seed Laboratory at Corvallis is under the Dean of Oregon State College of Agriculture, co-operating with the U. S. Department of Agriculture.

G. R. Hyslop, Head of Division of Plant Industry.

Mrs. Louisa Kanipe, Analyst, U. S. Department of Agriculture.

Free Tests to farmers—1 Purity and 1 Germination Test per year. (Between Dec. 1 and June 30 of succeeding year.)

Charges:

#### (a) Purity Tests:

1. Lawn or pasture mixtures and special mixtures .....\$5.00
2. Alfalfa, clovers (including sweet and bur clover), black medic, crested wheatgrass, winter bluegrass, ryegrass, meadow and tall fescues, millet, rape, timothy, phalaris, velvet grass, and and vetches (except mixtures)... 1.05
3. Peas, cereals, beets, and flax... .85
4. Mixtures of vetches..... 1.50
5. Bermuda, bromes, crested dogtail, fine fescues, Johnson grass, vernal, and Sudan grass..... 1.55
6. Bentgrasses, red top, and alkali grasses ..... 2.00
7. Bluegrass (except winter bluegrass), oatgrass, orchard grass, meadow foxtail, and Rhodes grass ..... 2.50
8. Very dirty samples requiring an unusual amount of work or screenings at 60 cents per hour.

#### (b) Germination Tests:

1. Paspalum, bluegrass, fescues (except meadow), orchard grass, Johnson grass, sugar beet (sprout test), Bermuda, bentgrasses, red top, meadow foxtail, tree seeds, and fluorescence tests on English ryegrass..... 1.05
2. All seeds not listed above.... .55
3. Where more than one germination is made on mixed vetch 55 cents will be charged for the first and 50 cents for each extra test.

(c) Any seed not listed will be charged the fee in the appropriate class above.

(d) Examinations and identifications.. .50

(e) Extra copies of reports will be charged for at 10 cents each.

## ENFORCEMENT

Under the Director of the State Department of Agriculture, J. D. Mickle, Salem, Oregon. Enforcing officer, Frank McKennon, chief Bureau of Plant Industry.

License fee \$2.50 per calendar year. Secured from State Director of Agriculture. Separate license fee is required for each branch, plant or warehouse.

Exemptions from license—

- (1) Any grower selling seeds of his own production exclusively.
- (2) Retailer selling only vegetable and flower seeds in packets not in excess of ½ pound which were packeted by a licensed company.

## PENNSYLVANIA

### Law of 1921

#### INFORMATION REQUIRED ON ANALYSIS TAGS

##### (A) Agricultural Seeds. 10 pounds or more.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed. (Prohibit 3%).
4. Name and number per ounce of each noxious weed present singly or collectively in excess of:
  - (a) One in 5 grams.
  - (b) one in each 25 grams.
  - (c) one in each 100 grams.
5. Percentage of germination together with month and year tested.
6. Where grown in case of Turkestan and Italian grown alfalfa or Italian and Chilian grown red clover.
7. Name and address of vendor.

##### (B) Mixtures. 10 pounds or more.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture
3. Percentage of weed seeds (Prohibit 3%).

##### (C) Special Mixtures. 8 ounces or more.

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in excess of 5% of total mixture.
3. Percentage of weed seeds (Prohibit 3%).
4. Percentage of inert matter.
5. Name and number per ounce of each kind of noxious weed seed present singly or collectively in excess of one in each 15 grams.
6. Where grown if Turkestan or Italian alfalfa and Italian or Chilian red clover.
7. Name and address of vendor.

##### (D) Vegetable seeds defined but excluded from labeling.

Prohibits the sale, offering or exposing for sale agricultural seeds—

# Ladino

The GIANT  
WHITE

## CLOVER SEED

Grows from three to four times as fast and as large as ordinary white clover.

Makes an excellent pasture and will handle more stock per acre than any other crop.

All seed certified, sealed and shipped under State supervision.

Write for Samples and Prices

## JOSEPHINE GROWERS COOP. ASSN.

Largest Growers of Certified Ladino Seed  
in the United States

GRANTS PASS

OREGON

## Lewis & Clark Seed Company

ASTORIA and SEASIDE

## BENT GRASS SEED

Growers—Shippers

## OREGON CERTIFIED

Astoria

Oregon

# Seedsmen— Dealers— ATTENTION PLEASE!

## It May Be

That we have the varieties and quantities of vegetable seeds you need. One thing sure we have the quality for your most critical trade.

## Write Us

Tell us your needs and we will be glad to quote you.

**WALTER S. SCHELL, Inc.**  
Quality Seeds

Schell Building Harrisburg, Penna.  
Central Pennsylvania's Largest Seed Store

# Wholesale Seeds

Farm Seeds  
Imported Grasses  
Lawn Mixtures  
Hybrid Corn



**Seaboard Seed  
Company**  
Philadelphia, Penna.

- (a) Containing in excess of 3% of weed seeds.
- (b) Containing in excess of one or more seeds of dodder and Canada thistle to each five grams of seed.

## NOXIOUS WEEDS

Wild onion or garlic—Allium species; quack grass—Agropyron repens; devil's paint brush—Hieracium aurantiacum; king devil—Hieracium species; perennial sow thistle—Sonchus arvensis; horse nettle—Solanum carolinense; bindweed—Convolvulus species.

PROHIBITED IF MORE THAN 1 IN 5 GRAMS.

Dodder—Cuscuta species; Canada thistle—

Cirsium arvense.

## SEED LABORATORY AND TESTS

Seed Laboratory, State Department of Agriculture, Harrisburg, Pennsylvania.

Mrs. Mary Mowry, Analyst.

Tests—Not more than five samples will be tested in any one month for any one person, firm or corporation, a fee of 25 cents must accompany the sample.

## ENFORCEMENT

Department of Agriculture, Bureau of Plant Industry, Harrisburg, Pennsylvania.

## RHODE ISLAND

### Law of 1929

## INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER

### (A) Agricultural Seeds. Every lot.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number per ounce of each noxious weed seed present in excess of:

(a) One in 5 grams.  
(See page 106, group A.)

(b) One in 25 grams.

(c) One in 100 grams.

5. Percentage of germination together with the month and year tested.
6. Name and address of vendor.

### (B) Mixtures of not more than 2 kinds. Every lot.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Percentage of weed seeds.
4. Name and number per ounce of each noxious weed seed present singly or collectively in excess of one seed in each 15 grams.
5. Percentage of germination of each kind of agricultural seed present in excess of 5%, together with the month and year tested.
6. Name and address of vendor.

### (C) Special mixtures. Every lot.

1. That such seed is a mixture.
2. Name of each kind of agricultural seed present in proportion of 5% of the total mixture.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number per ounce of each noxious weed seed present singly or collectively in excess of one in each 15 grams.
6. Name and address of vendor.

### (D) Vegetable seed. Every lot.

1. Kind of seed and variety.
2. Name and address of vendor or packeter.

## NOXIOUS WEEDS

Quack grass—Agropyron repens; Canada thistle—Cirsium arvense; dodder—Cuscuta species; wild mustard—Brassica arvensis and other wild brassica species; crab grasses—Digitaria species; docks—Rumex species; corn cockle—Lychnis githago; buckhorn—Plantago lanceolata; wild carrot—Daucus carota.

"STOP SALE." Whenever the Commissioner of Agriculture receives information that agricultural seeds are being offered or exposed for sale in violation of any requirements of this act, and is of the opinion that the interests of the public so require, he may apply to the superior court of the counties of Providence and Bristol for an injunction to restrain such violation, and thereupon such court being satisfied that such seed is for sale in violation of this act, shall issue an injunction to restrain any person, firm or corporation from selling, offering or exposing for sale such seed.

## SEED LABORATORY AND TESTS

Department of Agriculture, Providence, Rhode Island. George H. Geddes.

Any citizen of Rhode Island may have 5 free tests during the year.

Fees for additional tests.

Germination—All seeds except grasses other than timothy 30 cents. Grasses, except timothy, 50 cents.

Purity—Cereals 50 cents, timothy and other crop seeds, except grasses, 75 cents. Grasses and mixtures of not more than two kinds \$1.00. Special mixtures, the actual cost of work, minimum \$1.25.

## ENFORCEMENT

Under State Department of Agriculture and Conservation, Dr. G. W. Breed, Director.

310 State House, Providence, Rhode Island.

## SOUTH CAROLINA

### Law of 1940—Regulations of 1941

## INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER.

### (A) Agricultural Seeds (Unmixed). Every lot (Sec. 2). Every lot of 10 pounds or more (Sec. 18).

- (1) Commonly accepted name.
- (2) Percentage of pure seed.
- (3) Percentage of inert matter.
- (4) Percentage of weed seeds. Prohibited if in excess of 5%, carpet grass 10%. (Regulations.)
- (5) Percentage of other agricultural seeds.
- (6) Percentage of germination together with the month and year tested.
- (7) State where grown, when known, if in the United States.
- (8) Name and address of vendor.
- (9) Name and number of noxious weed seeds per ounce, present singly or collectively, if less than 15 per ounce. (Regulations.)
- (10) Net weight. (Weight and measure law.)

### (B) Mixed Agricultural Seeds. Every lot (Sec. 7). Every lot of 10 pounds or more (Sec. 18).

- (1) That such seed is a mixture.
- (2) Name, kind of each seed entering into the mixture in excess of 5%.
- (3) Percentage of inert matter.
- (4) Percentage of weed seeds. Prohibit if in excess of 5%, carpet grass 10%. (Regulations.)

- (5) Percentage of other agricultural seeds.
- (6) Name and address of vendor.
- (7) Name and number of noxious weed seeds per ounce, present singly or collectively, if less than 15 per ounce. (Regulations.)
- (8) Net weight. (Weight and measure law.)

### (C) Vegetable Seeds. Every package (Sec. 9). Every parcel or package of 10 pounds or more (Sec. 18).

- (1) Variety.
- (2) Percentage of purity.
- (3) Percentage of weed seeds. Prohibit if in excess of 5%. (Regulations.)
- (4) Percentage of germination.
- (5) For seed which germinates less than the established standard. (Regulations.)  
(See standards, page 102.)
- a. Percentage of:
  1. Germination, exclusive of hard seeds.
  2. Hard seeds.
  3. Month and year of test. Not more than 5 months shall elapse between the month the test is completed and the date of transportation or delivery for transportation in interstate commerce.
- b. The words "BELOW STANDARD" in not less than 8-point type.

### (D) Flower Seeds. Every package (Sec. 9). Every parcel or package of 10 pounds or more (Sec. 18).

- (1) Variety.
- (2) Percentage of purity.
- (3) Percentage of germination.

**Prohibits the sale, offering or exposing for sale of agricultural vegetable or flower seeds if—(Regulations)**

- (1) Containing in excess of 5% of weeds, carpet grass 10%.
- (2) Containing 15 or more noxious weed seeds, singly or collectively, per ounce.

**NOXIOUS WEEDS—Prohibit 15 or more per ounce, singly or collectively, label if less.**

Wild Onion or Wild Garlic, all Dodders, Corn Cockle, Cheat or Chess, Wild Oats, Johnson Grass, Wild Mustard, Canada Thistle, Black Mustard, Sand Bur, Nut Grass.

**CONFISCATION AND DISPOSITION OF SEIZED SEEDS.**

Any agricultural, vegetable or flower seeds offered or exposed for sale which do not comply with the requirements of the seed act shall be seized and condemned, sold or destroyed by the Commissioner of Agriculture, Commerce, and Industry or his duly authorized representative, the proceeds from such sale shall be converted into the State Treasury. The sale shall be made at the court house door in the county in which the seizure was made, and shall be advertised for thirty days in a newspaper in the county, or if no newspaper be published in the county, then

it shall be published in the nearest county. The advertisement shall state:

- (1) Name and variety of the seed.
- (2) The quantity.
- (3) Why seized and offered for sale.
- (4) Time and place of sale.

The Commissioner may release seed so withdrawn from sale when the requirements of this act have been complied with and upon payment of all costs or expenses incurred in such seizure and withdrawal.

**SEED LABORATORY AND TESTS**

Department of Agriculture, Columbia, South Carolina.  
Commissioner may limit the number of free tests to residents.  
Fee for purity tests \$2.00, germination tests \$1.00 to non-residents.

**ENFORCEMENT AND REGULATIONS**

Commissioner of Agriculture, J. Roy Jones, Columbia, South Carolina.  
License—Payable January 1st annually.  
\$ 1.00—Where only boxed package vegetable or flower seed are handled.  
2.50—Where gross business is less than \$200, with or without package vegetable or flower seeds.  
5.00—Where gross business is over \$200 and less than \$500.  
10.00—Where gross business is over \$500 and less than \$1,000.  
25.00—Where gross business is \$1,000 or more.  
Commissioner may withdraw from sale seed not having reasonable germination or that are

extremely impure, notwithstanding they may be properly labeled, if such withdrawal is in the interest of normal crop production.  
*Agricultural seeds* shall have a germination of 75% (except legumes), if the germination is below 75% and above 49% they shall be marked "BELOW STANDARD IN GERMINATION," if the germination is less than 50% (except legumes) the seed cannot be sold.  
Germination standards of clover and lespedeza shall be 60% calculated as "pure live seed." If below 60% and above 39% "pure live seed" it must be labeled "BELOW STANDARD." If less than 40% "pure live seed" it cannot be sold.  
Germination standards for other legumes shall be 75% calculated as "pure live seed." If below 75% and above 49% "pure live seed" it shall be labeled "BELOW STANDARD." If below 50% "pure live seed" it cannot be sold.  
*Variety.* The vendor will be held responsible for declaring the variety of all seed not clearly distinguishable from other varieties.  
*Quantity* to be labeled. All agricultural, vegetable or flower seed offered or exposed for sale, shall bear standard tag or label except seed sold across the counter from bin or container when such container carries standard label in full view.  
A *mixture* means seed consisting of more than one kind or variety each present in excess of 5% of the whole.  
*Certified and registered seed* must have been produced in accordance with the procedures and in compliance with the rules and regulations of an officially recognized seed certifying agency.

**SOUTH DAKOTA**

Act of 1941

**INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINERS.**

**(A) Agricultural Seeds. Every lot.**

- (1) Commonly accepted name of:
    - a. Kind or,
    - b. Kind and variety or,
    - c. Kind and type.
  - (2) Lot number or other lot identification.
  - (3) Percentage of purity.
  - (4) Percentage of inert matter.
  - (5) Percentage of weed seeds.
  - (6) Percentage of other agricultural seeds.
  - (7) Percentage of:
    - a. Germination, exclusive of hard seeds.
    - b. Hard seeds.
    - c. Month and year of test. Test shall have been completed within a nine month period, exclusive of the month in which it was completed.
- Following a and b "Total germination and hard seed" may be given if desired.
- (8) State and county where grown, for alfalfa, red clover and field corn (except hybrid).
  - (9) Name and address of person who labels the seed, or who sells, offers or exposes said seed for sale.
  - (10) Name and number of each kind of secondary noxious weed seed, per ounce in groups B1 and B2 and per pound in B3 and B4 when present singly or collectively in excess of:
    - a. 1 seed in each 10 grams.
    - (See page 106, Group B.)
    - b. 1 seed in each 25 grams.
    - c. 1 seed in each 50 grams.
    - d. 1 seed in each 100 grams.

**(B) Mixed agricultural seeds. Every lot.**

Same as for unmixed seed, except that it must be called "Mixed" or a "Mixture" and the information required under items (A) 1, 3 and 7 shall be given for each agricultural seed present in excess of 5% in the order of its predominance.

**(C) Vegetable seeds. Every lot.**

- (1) Name of kind and variety.
- (2) For seed which germinates less than the minimum standard established by the State Secretary of Agriculture. (See page 102 for standards.)
  - a. Percentage of germination, exclusive of hard seed.
  - b. Percentage of hard seed.
  - c. Month and year test was completed. Test shall have been completed within a nine month period, exclusive of the month in which it was completed.
  - d. Words "BELOW MINIMUM STANDARD" in not less than 8-point type.
- (3) Name and address of person who labels the seed, or who sells, offers or exposes said seed for sale.

**Prohibits the sale, offering or exposing for sale, of agricultural or vegetable seed.**

- a. Unless the test for germination has been completed within a nine month period.
- b. Containing primary noxious weeds subject to tolerances.

**NOXIOUS WEEDS**

**Primary noxious weed seeds**

**PROHIBITED IN SEED SUBJECT TO TOLERANCES**

Field bindweed—*Convolvulus arvensis*; Leafy spurge—*Euphorbia esula*, and *E. lucida*; Perennial peppergrass—*Lepidium draba*; Russian knapweed *Centaurea repens*; Perennial sow thistle—*Sonchus arvensis*; Canada Thistle—*Cirsium arvense*; Quack grass—*Agropyron repens*; Horse nettle—*Solanum carolinense*.

**Secondary noxious weeds.**

Wild oats—*Avena fatua*; Dodders—*Cuscuta* spp.; Wild mustards—*Brassica arvensis*, *B. nigra*, *B. juncea*; Penny cress—*Thlaspi arvense*; Ivy leaved morning glory—*Ipomea hederacea*; Hedge bindweed—*Convolvulus sepium*; Wild carrot—*Daucus carota*.

FARMERS are exempt from complying with provisions of this act when selling corn, wheat, oats, barley, rye, flax, spelt, emmer, buckwheat, sorghum, beans and peas when grown, sold and delivered on his premises to the purchaser.

"STOP SALE" order may be issued and enforced by the State Secretary of Agriculture to the owner or custodian of any lot of agricultural or vegetable seed which he finds in violation of any of the provisions of this act. No such order shall be issued or enforced without first having given the owner or custodian an opportunity to comply with the act or withdraw the seed from sale. If the seed has been denied sale as provided in this paragraph, the owner or custodian shall have the right to appeal from such order to a court of competent jurisdiction where the seeds are found, praying for a judgment as to the jurisdiction of said order and a discharge of such seed from the order prohibiting the sale in accordance with the findings of the court.

**SEIZURE.** Any lot of agricultural or vegetable seed not in compliance with the provisions of this Act shall be subject to seizure on complaint of the State Secretary of Agriculture to a court of competent jurisdiction in the area in which the seed is located. If the court finds the seed to be in such violation of the Act and orders the condemnation of said seed, it shall be processed, destroyed, relabeled, or otherwise disposed of in compliance with the rules of the State Secretary of Agriculture; Provided, that in no instance shall such disposition of said seed be ordered by the court without first having given the claimant an opportunity to apply to the court for the release of said seed or permission to process or relabel it to bring it into compliance with this act.

**SEED LABORATORY AND TESTS**

Department of Agronomy, South Dakota.  
State College of Agriculture, Brookings, South Dakota.  
E. L. Erickson—Ass't Agronomist in charge of Seed Laboratory.

**Tests. Charges for laboratory services—**

Most purity and germination tests .....	50 per sample.
Chaffy grasses and mixtures .....	80 " "
Corn germination .....	25 " "
Noxious weed examination .....	20 " "
Disease tests .....	20 " "

Uncleaned seed will be tested and charged for on the basis of time required.

**ENFORCEMENT AND REGULATIONS**

Enforcement under Commissioner of Agriculture.

**CERTIFIED SEED.**

The Secretary of Agriculture has authority to:

1. Establish a seed certification system and make rules and regulations necessary.
2. Designate the names of kinds, varieties and strains, and establish the grades and standards of quality allowed in seed stock which may become eligible for field registration or certification of the seed crop.
3. Prescribe all labels, seals or certificates that shall be used in relation to seed grown, handled or offered for sale in South Dakota as "registered," "certified," "pedigreed," "elite," "foundation seed," or "inspected seed."
4. Cooperate with managers of any seed cleaning, treating or processing plants, or individual or person within or without the state that has proper facilities and equipment to handle seed which is eligible for registration or certification.
5. Cooperate and assist in selection, testing and growing of seed for certification purposes, and in the arrangement for increase and distribution of improved and foundation seed stock.
6. To fix and establish an equitable schedule of fees and charges which shall be uniform throughout the state for the inspection and certifying of South Dakota seed, and to collect all such fees and charges.

**Labeling and Representing Registered and Certified Seed.**

All seed grown in South Dakota or transported into this state must have the approval and authorization of the Secretary of Agriculture before it may be offered for sale as "registered," "certified," "pedigreed," "elite," "foundation stock" or "inspected seed."

**Hybrid Seed Corn**

Any seed corn sold as hybrid must represent the first generation of a cross between strains of different parentage and involve lines of corn of a high degree of inbreeding or close breeding or their combinations. Such cross shall be produced by cross-fertilization controlled either by hand or by detasseling at the proper time.

Any person or firm desiring to sell hybrid seed corn is required to register with the South Dakota State Department of Agriculture, and to furnish the pedigree of such hybrid seed corn, and when called for by the Department of Agriculture, shall furnish a sample not to exceed one quart for the purpose of testing.



# TENNESSEE

Act Effective July 1, 1939

## INFORMATION REQUIRED ON ANALYSIS TAGS

### (A) Agricultural Seeds. On half bushel or more.

1. Commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Percentage of other crop seed.
5. Percentage of inert matter.
6. Name and number per pound of noxious weed seeds which are present.
7. Percentage of germination and hard seeds together with the month and year tested.
8. Where grown.
9. Name and address of person or firm responsible for the information on tag, as well as consignee's name and address.

### (B) Mixtures.

1. That such seed is a mixture.
2. The kind and percentage of each kind of agricultural seed present in excess of 10% or more of the mixture, and items 3, 4, 5, 6, 7, 8 and 9; section (A),

### (C) Vegetable and Flower Seed.

Mentioned only under annual \$1.00 license fee.

### (D) Hybrid Corn.

Any seed of field, sweet or popcorn may not be offered as "hybrid corn" unless such seed represents the first generation of a cross between strains of different inbred parentages and involving two or more lines of corn or their combinations. Require names of originator(s) and pedigree, including name or variety or parentage of said hybrid corn, to be registered with the Commissioner of Agriculture.

### NOXIOUS WEEDS

Canada Thistle  
Corn Cockle  
All Dodders\*  
Oxeye Daisy  
Quack Grass  
Johnson Grass { Prohibited except in unhulled  
Wild Onion { crimson clover.  
Commissioner of Agriculture may prescribe a maximum number of noxious weeds per pound.

\* Regulation Feb. 24, 1941. Maximum dodder in lespedeza 100 per pound.

### CERTIFIED

Use of word "Certified" limited to seed certified by a certifying agency or to seed registered by the International Crop Improvement Association.

Certification tag must show:

1. Grower's name or number and address.

2. Name and address of certifying agency.
3. The state, province, territory or county where grown.

### LABORATORY

State Department of Agriculture, Nashville, Tenn. F. H. Spanier, Analyst.

### ENFORCEMENT

C. C. Flanery, Commissioner of Agriculture; V. L. Fuqua, Supt. and State Chemist.

The Commissioner of Agriculture is authorized to:

- (1) Prescribe the type of tag or label.
- (2) prescribe the type of stamp or other evidence of payment of the inspection fee.
- (3) Fix the minimum percentages of purity and germination for agricultural seeds and mixtures.
- (4) Fix the maximum number of noxious weed seeds per pound.
- (5) Make and promulgate such rules and regulations as may be necessary for the enforcement of this act.

There shall be an inspection fee of 2 cents per bushel on the following: Red Clover, White Clover, Crimson Clover, Lespedeza, Alfalfa, Kentucky Blue Grass, Timothy, Brome Grass, Orchard Grass, Redtop, Meadow Fescue, Oat Grass, Rye Grass, Millet, Bermuda Grass, Sudan Grass; together with a \$1.00 license fee, per annum. The \$1.00 license fee shall apply to vegetable and flower seed.

# TEXAS

Law of 1941

## INFORMATION REQUIRED ON ANALYSIS TAGS OR CONTAINER

### (A) Agricultural Seeds. (Unmixed) Every lot. Use Texas tags.

- (1) Commonly accepted name of:
  - a. Kind or
  - b. Kind and variety or
  - c. Kind and type.
- (2) Lot number or other lot identification.
- (3) Percentage of purity.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination, exclusive of hard seed.
  - b. Hard seeds.
  - c. Month and year of test. Test shall have been completed within a twelve month period, exclusive of month in which test was completed.

Following a & b "Total germination & hard seed" may be given if desired.

- (8) Origin of alfalfa, red clover and field corn. If origin is unknown, it must be so stated.
- (9) Name and address of person who labeled seed, or who sells, offers or exposes seed for sale.
- (10) Name and number of secondary noxious weeds per ounce in groups B1 & B2 and per pound in B3 & B4 if present singly or collectively in excess of:
  - a. 1 in each 5 grams.
  - (See page 106, group B.)
  - b. 1 in each 10 grams.
  - c. 1 in each 25 grams.
  - d. 1 in each 100 grams.

### (B) Mixed Agricultural Seeds. Every lot. Use Texas tags.

Same as unmixed seed, except that it must be called "MIXED" or a "MIXTURE" and the information required under items, 1, 3 and 7 shall be given for each agricultural seed present in excess of 5% in the order of its predominance.

### (C) Vegetable seeds. Every lot. Use Texas Tags.

- (1) Name of kind and variety.
- (2) For seed which germinates less than the standard last established by the Commissioner of Agriculture. (See page 102 for standards.)

- a. Percentage of germination, exclusive of hard seed.
  - b. Percentage of hard seed.
  - c. Month and year of test. Test shall have been completed within a twelve month period, exclusive of the month in which the test was completed.
  - d. Marked "BELOW STANDARD" in not less than 8 point type.
- (3) Name and address of person who labeled seed, or who sells, offers or exposes seed for sale.

### Prohibits the sale, offering or exposing for sale of,

- A. Agricultural or vegetable seed containing primary noxious weeds subject to tolerances.
- B. Agricultural or vegetable seed unless the test for germination shall have been completed within a twelve month period, exclusive of the month in which the test was completed.

### NOXIOUS WEEDS

#### (A) Primary Noxious Weeds.

PROHIBITS SEED CONTAINING ANY SUBJECT TO TOLERANCES.

Johnson grass—Andropogon halepensis  
Bindweed—Convolvulus spp.  
Blue Weed—Helianthus ciliaris  
Dodder—Cuscuta spp.

#### B) Secondary Noxious Weeds.

Russian thistle—Salsola kali  
Wire grass—Paspalum distichum  
Bermuda grass—Cynodon dactylon  
Wild oats—Avena fatua  
Chess or cheat—Bromus secalinus  
Buckhorn plantain—Plantago lanceolata  
Purple nightshade—Solanum elaeagnifolium  
Darnel—Lolium temulentum  
Wild mustard—Brassica sinapistrum  
Curly dock—Rumex crispus

"STOP SALE" orders may be issued by the Commissioner of Agriculture for any lot of agricultural or vegetable seed which he has reason to believe is in violation of any of the provisions of this act which shall prohibit the further sale of said seed until the law has been complied with. The owner or custodian of said seed may appeal from such order to a court of competent jurisdiction where the seed is found, praying for a judgment as to the justification of said order and for the discharge from such order in accordance with the finding of the court.

### SEIZURE.

Any lot of agricultural or vegetable seed not in compliance with the provisions of this act shall be subject to seizure on complaint of the Commissioner of Agriculture to a court of competent jurisdiction in the area in which the seed is located. In the event that the court finds the seeds to be in violation of the act and orders its condemnation, it shall be denatured, processed, destroyed, relabeled or otherwise disposed of in compliance with the laws of the state. In no instance shall such disposition be ordered by the court without first having given the claimant an opportunity to apply to the court for its release or permission to process or relabel it to bring it into compliance with the act.

### HYBRID CORN.

The first generation seed of a cross produced by controlling the pollination, and by combining two, three or four inbred lines, or by combining one inbred line or a single cross with an open-pollinated variety. Hybrid designations shall be treated as variety names.

### SEED LABORATORY AND TESTS

State Seed Laboratory, Department of Agriculture, Austin, Texas.

Miss Wynona Robbins—Chief Analyst.

Fees for tests—Residents of Texas: Agricultural seeds free; vegetable and flower seed purity 25c, germination 25c. Out of state firms: Purity 25c, germination 25c.

### ENFORCEMENT AND REGULATIONS

Enforcement is under the Department of Agriculture, Austin, Texas.

J. E. McDonald, Commissioner.

Linden E. Jones, Chief of Seed Laboratory Division.

Certified Copy of the information required on the tag, (see (A) above) shall be filed with the Commissioner of Agriculture covering the lot of seed to be sold.

Inspection tax of not over 1 cent for each 100 pounds or fraction thereof shall be paid to the Commissioner and a tag furnished by the Commissioner shall be attached to the container of the seed offered for sale.

(These tags constitute the "tested" seed labels and must bear the analysis (Sec. A).)

To ship Cotton seed—a certificate of field inspection made by county or state authorities must be filed with Seed Laboratory Division,

Department of Agriculture, Austin. If fields were inspected, the per cent must be stated on the certificate. Over 2% denied entry. *Cotton, Alfalfa, Corn and Sorghum seed* (either sweet or grain) must meet the requirement set forth by the Commissioner of Agriculture and shall bear a special tag issued by him. He shall have authority to refuse permission to ship such seed into Texas when the records and information of his agents show the seed to be inferior quality, lacking prescribed varietal purity or from diseased fields. All planting seed shipped into Texas bearing labels denoting *Registered or Certified* seed shall have been produced under standards equal to standards in Texas for such class of seed. If not approved they may bear Registration or

Certification tags issued by the state of origin provided such tags are plainly marked—"These tags do not meet the requirements of Registration or Certification in Texas."

Prohibit use of *Red or Blue Tags* except when used by duly qualified plant breeders or certified seed growers unless such tags are marked in bold type, "Non-Registered" or "Non-Certified" seed.

Where such terms as "from officially inspected fields," "State Inspected," "Approved Seed," "Inspected Fields," "first year from Certified Seed," "as good as Certified" and similar terms are used, such written material shall plainly show the words, "Non-Registered" or "Non-Certified."

## UTAH

### Revised Statutes of 1939 and Regulations

#### INFORMATION REQUIRED ON ANALYSIS TAG

##### (A) Agricultural Seed. Every lot.

1. Commonly accepted name.
2. Lot number or designation.
3. Percentage of pure seed.
4. Percentage of weed seed (Prohibit over 1% by Regulation 5).
5. Name and number per pound, not to exceed 90 per pound, of secondary noxious weeds.
6. Percentage of germination together with the month and year tested.
7. Where grown.
8. Name and address of vendor.

##### (B) Mixtures of not more than two kinds. Every lot.

1. That such seed is a mixture.
2. Lot number or designation.
3. Name and percent of each kind of agricultural seed present in excess of 5% of the total mixture.
4. Percentage of weed seeds (Prohibit over 1% by Regulation No. 5).
5. Name and number per pound, not to exceed 90 per pound of secondary noxious weeds.
6. Percentage of germination of each kind of agricultural seed in excess of 5% together with the month and year tested.
7. Where grown.
8. Name and address of vendor.

##### (C) Special mixtures. Every lot.

1. That such seed is a mixture.
2. Lot number or designation.
3. Name of each kind of agricultural seed present in excess of 5% of the total mixture.
4. Percentage of weed seeds (Prohibit over 1% by Regulation No. 5).
5. Percentage of inert matter.
6. Name and number per pound, not to exceed 90 per pound of secondary noxious weeds.
7. Where grown.
8. Name and address of vendor.

##### (D) Vegetable seeds same as agricultural seeds. See (A) above.

**Prohibit the sale, offering or exposing for sale agricultural or vegetable seeds containing**

- (a) Primary noxious weeds.
- (b) In excess of 90 secondary noxious weed seeds per pound.
- (c) In excess of 1% of weed seeds.

#### NOXIOUS WEEDS

##### Primary—Prohibited.

White top, *Lepidium draba*; Wild Morning Glory, *Convolvulus arvensis*; Canada thistle, *Cirsium arvense*; Russian Knapweed, *Centaurea picris*; Perennial Sow Thistle, *Sonchus arvensis*; Perennial Ragweed, *Ambrosia Psilostachya*; Leafy spurge, *Euphorbia esula*; Puncture vine, *Tribulus terrestris*; Night shade (Ground cherry), *Physalis heterophylla*; Blue flowering lettuce, *Lactuca pulchella*; Quack grass, *Agropyron repens*; Bermuda grass, *Cynodon dactylon*.

##### Secondary

Give name and number per pound if not to exceed 90 per pound; prohibited if over.

#### SEED LABORATORY AND TESTS

State Seed Laboratory.  
Department of Agriculture.  
Salt Lake City, Utah.  
Georgeanna Cameron, Analyst.  
Tests—subject to rules by the State Board of Agriculture.

#### REGULATIONS

1. *Screenings* must be ground or otherwise de-vitalized under supervision of State Board of Agriculture. Screenings of Alfalfa, Clover or Timothy or other seed of sufficient value which do not contain noxious weeds may be released by authority of State Board of Agriculture.
2. Use the *Rules for Seed Testing* recommended by the Official Seed Analysts Assn.
3. *Primary Noxious Weeds* are prohibited in any quantity.
4. *Secondary Noxious Weeds* prohibited when more than 90 per pound.
5. *Total of more than 1%* of weed seeds prohibited.
6. *Quarantine and disposal* of any seed, feed or hay containing any primary noxious weed, plant or seeds, to be made by District Agricultural Inspectors.
7. *Seeds or Feeds Quarantined* because of primary noxious weeds not permitted to be transported within or without the state. May be cleaned under supervision of an official representative of State Board of Agriculture. If found free from primary noxious weed seeds, may be released for distribution, otherwise must be destroyed.

**Packet Seeds**—Seeds commonly sold in small package or from bulk in small amounts may be exempt from the labeling provisions, provided the container containing such packages or seeds is labeled. The vendor's name and address must appear on each smaller container in said lot of seeds.

**Original Label**—The analysis label of original seller may be retained for a period not to exceed 3 months from the date of delivery.

#### Quarantine No. 9A

**Certificate of freedom from primary noxious weeds**—All agricultural and vegetable seeds, hay, straw and hay or straw products of any nature must bear a certificate of the complete absence of the seeds of all "Primary noxious weeds," issued by an authorized inspector at the point of origin, before such seeds can be entered into interstate commerce for shipment into Utah.

**Carrier to hold for inspection**—All agricultural and vegetable seeds, hay, straw and hay or straw products of any nature, arriving in the state from points outside, shall be held by the carrier until released by an authorized inspector of the Utah State Board of Agriculture. Any agricultural product imported in violation of this quarantine must either be returned to the point of origin or be destroyed by the owner under the supervision of an authorized inspector of the State Board of Agriculture.

# GARDEN, FIELD and FLOWER SEEDS

MERCHANTS OF THE SOUTHWEST have at their command large stocks of Garden, Field and Flower Seeds, centrally located for receipt of overnight shipments.

NICHOLSON'S SEEDS have set the standard of quality in the Southwest for more than 50 years. If you do not receive our wholesale list, please send us your name.

**ROBERT NICHOLSON  
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*We Specialize  
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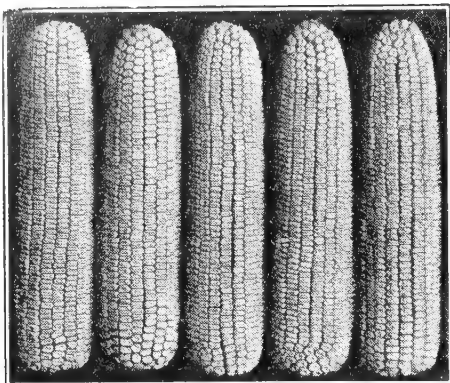
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## WOODS HYBRID CORNS

Leading Strains for the South

We also carry a complete line of open pollinated varieties for both field and ensilage purposes.

Leading Distributors of

SERICEA AND KOBE LESPEDEZA

WILT RESISTANT RAMSHORN PEAS

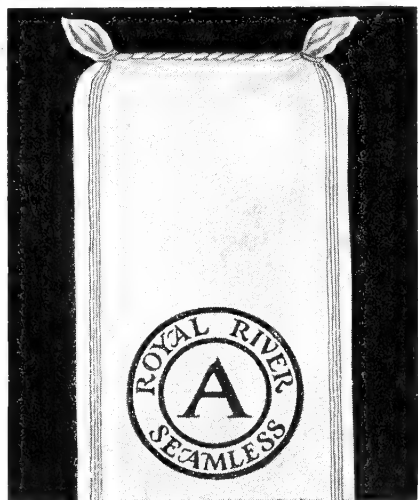
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Write for Information

**T.W. WOOD & SONS**  
OLDEST AND LARGEST SEED HOUSE IN THE SOUTH  
RICHMOND, VIRGINIA

Accepted by millions as  
standard for over 80 years



Guaranteed

Breaking Strength Standard  
Weight Full 16 Ozs. Standard  
Size Uniform 20x45 Standard



Due to our special bag construction,  
triers for sampling can be used any-  
where on the bag—and hole will  
close.

Manufactured by

**ROYAL RIVER MILLS, Inc.**

## VERMONT

Law of 1926 As Reprinted 1933

### INFORMATION REQUIRED ON ANALYSIS TAG

#### (A) Agricultural Seeds. Ten pounds or more.

1. The commonly accepted name.
2. Percentage of pure seed.
3. Percentage of weed seed.
4. Name and number per ounce of each noxious weed present singly or collectively in excess of:
  - (a) one seed in each 5 grams.
  - (b) one seed in each 25 grams.
  - (c) one seed in each 100 grams.
5. Percentage of germination together with the month and year tested.
6. Where grown in case of imported red clover, alfalfa and orchard grass.
7. Name and address of vendor.

#### (B) Mixtures of not more than two kinds. Ten pounds or more.

1. That such seed is a mixture.
2. Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
3. Percentage of weed seeds.
4. Name and number per ounce of each noxious weed seed present singly or collectively in excess of one seed in each 15 grams.
5. Percentage of germination of each kind of agricultural seed present in excess of 5% together with the month and year tested.
6. Where grown in case of imported alfalfa, red clover and orchard grass.
7. Name and address of vendor.

#### (C) Special mixtures. Eight ounces or more.

1. That such seed is a mixture.

2. Name of each kind of agricultural seed present in proportion of 5% of the total mixture.
3. Percentage of weed seeds.
4. Percentage of inert matter.
5. Name and number per ounce of each kind of noxious weed seeds present singly or collectively in excess of one seed in each 15 grams.
6. Where grown in case of imported alfalfa, red clover or orchard grass.
7. Name and address of vendor.

#### (D) Vegetable seed not included in law.

### NOXIOUS WEEDS

Quack grass; wild mustard and other brassicas; Canada thistle; dodder; ergot; corn cockle; poison hemlock.

### LABORATORY AND TESTS

Seed Laboratory.  
Agricultural Experiment Station.  
Burlington, Vermont.  
Mrs. Anna Lutman, Analyst.  
Number of free tests and charges for additional samples to be fixed by the Director of Agricultural Experiment Station.

### ENFORCEMENT AND REGULATIONS

J. L. Hills, Director of Agricultural Experiment Station at Burlington, Vermont.  
License.

In January of each year each vendor must pay \$5.00 license fee for each brand of agricultural seed or mixture of agricultural seeds.

Regulation.  
License fee not required on:  
Mixed seed used solely or primarily for lawns and golf courses.

## VIRGINIA

Amended and Re-enacted 1938

### INFORMATION REQUIRED ON ANALYSIS TAG

#### (A) Agricultural seeds. Every lot of 10 pounds or more.

1. Commonly accepted name.\*
2. Percentage of pure seed.
3. Percentage of weed seed. (Prohibit sale if over 3%.)
4. Name and number per ounce of each noxious weed present.
5. Percentage of:
  - (a) Germination, exclusive of hard seeds.
  - (b) Hard seeds. (Regulation.)
  - (c) Month and year of test.
6. Name and address of vendor.

\*Seed containing more than one variety or varieties, singly or collectively must be labeled as follows:

- (a) If as much as 10% of another variety or varieties singly or collectively are present the word "mixed" must follow kind as "mixed soybeans" or "mixed cowpeas." The approximate percentage of each variety may be given.
- (b) Seed containing as few as 5% or less than 10% of another variety or varieties singly or collectively must be labeled as to kind only as "soybeans" or "cowpeas."
- (c) Seed containing less than 5% of another variety or varieties singly or collectively may be labeled as a single variety.

#### (B) Mixtures. Every lot.

1. That such seed is a mixture.
2. (a) Name of each kind of agricultural seed present in excess of 5% of the total mixture.
- (b) Mixtures containing two kinds only, of agricultural seeds, must also be labeled with the percentage of each.
- (c) If agricultural seeds present in quantities less than 5% of the total are named on label the percentage of each must be given.
3. Percentage of weeds. (Prohibit sale if over 3%.)

4. Percentage of inert matter.
5. Name and number per ounce of each kind of noxious weed present.
6. For each kind of agricultural seed present in excess of 5% give:
  - (a) Percentage of germination, exclusive of hard seeds.
  - (b) Percentage of hard seeds. (Regulation.)
  - (c) Month and year of test.
7. Name and address of vendor.

#### (C) Vegetable Seed. Every separate container.

1. Kind of seed and variety.
2. Year for which packeted, words "packed for" shall precede the year.
3. Percentage of germination, together with the month and year tested, provided the germination is less than the Virginia standards. (See page 102.)
4. Name and address of person or firm who packed the seeds and labeled the same.

### NOXIOUS WEEDS

Wild onion—Allium vineale; Bermuda grass—Cynodon dactylon; quack grass—Agropyron repens; Canada thistle—Cirsium arvense; hawkweed—Hieracium species; dodder—Cuscuta species (prohibited if 12 or more to one ounce of seed); Johnson grass—Sorghum halepense (prohibited if one to two ounces of seed).

### SEIZURE OF SEED.

The Commissioner of Agriculture and Immigration may cause to be seized and held any lot of agricultural seeds or mixtures of same, found to violate any of the provisions of this act until the law has been complied with or said violation otherwise legally disposed of; provided, however, that such person, firm or corporation shall have the right immediately to apply to the circuit court of the city or county in which seizure is made, for release of the same from seizure.

### SEED LABORATORY AND TESTS

1112 State Office Building, Richmond, Virginia.

In charge of G. T. French, State Entomologist and chief botanist.

The Commissioner of Agriculture may fix the maximum number of samples tested free of charge for any one period of time for any individual firm or corporation.

ENFORCEMENT AND REGULATIONS

Enforcement—Commissioner of Agriculture.  
Regulations—*Hard seeds* shall not be included in the percentage of germination but may be shown on the analysis tag in the following manner:

Germination .....	85%
Hard seed .....	10%
Total .....	95%

Broken sprouts—seedlings of crimson clover and other legumes having both cotyledons broken

off or a broken hypocotyl shall not be counted as germinated.  
Local vendor may use the wholesaler's tag for only 90 days from date of delivery.  
*Bermuda grass* may be sold as an agricultural seed when so marked. When present in other kinds of seeds is a noxious weed.

WASHINGTON  
Law As Amended to 1941

INFORMATION REQUIRED ON  
ANALYSIS TAG OR CONTAINER

- (A) Agricultural Seeds (Unmixed) Every lot.
- Commonly accepted name of  
(a) Kind or  
(b) Kind and variety or  
(c) Kind and type.
  - Lot number or other lot identification.
  - Percentage of purity.
  - Percentage of inert matter.
  - Percentage of weeds.
  - Percentage of other agricultural seeds.
  - Percentage of  
(a) Germination, exclusive of hard seed.  
(b) Hard seed.  
(c) Month and year of test. Test shall have been completed within a nine month period exclusive of the month in which test was made.
- Following (a) and (b) "Total germination and hard seed" may be given if desired.
- Origin of alfalfa, red clover and field corn (except hybrid). If origin is unknown it must be so stated.
  - Name and address of person who labeled seed, or who sells, offers or exposes said seed for sale.
  - Name and number of each secondary noxious weed per pound when present singly or collectively in excess of  
(a) One seed or bulblet in each 10 grams of *Agrostis* spp., *Poa* spp., *Bermuda* grass, timothy, orchard grass, fescue (except meadow), alsike and white clover, reed canary grass and other agricultural seeds of similar size and weight or mixtures within this group.  
(b) One seed or bulblet in each 25 grams of ryegrass, meadow fescue, millet, alfalfa, red clover, sweet clover, lespedeza, smooth brome grass, crimson clover, *Brassica* spp., flax, *Agropyron* spp., and other agricultural seeds of similar size and weight, or mixtures within this group, or of this group with (a).  
(c) One seed or bulblet in each 100 grams of wheat, oats, rye, barley, buckwheat, sorghums, vetches, and other agricultural seeds of a size and weight similar to or greater than those within this group or any mixtures within this group.

- (B) Mixed Agricultural Seeds. Every lot.
- Same as for unmixed seed except that it must be called "Mixed" or a "Mixture" and the information required under items (A) 1, 3 and 7 shall be given for each agricultural seed present in excess of 5% in the order of its predominance.

- (C) Vegetable Seeds. Every lot.
- Name of kind and variety.
  - For seeds which germinate less than the standard last established by the Director of Agriculture. (See page 102 for standards.)  
(a) Percentage of germination, exclusive of hard seed.  
(b) Percentage of hard seed.  
(c) Month and year of test. Test shall have been completed within a nine month

- period exclusive of the month in which it was completed.  
(d) The words "BELOW STANDARD."  
3. Name and number per pound of secondary noxious weeds.  
4. Name and address of the person who labeled seed, or who sells, offers or exposes said seed for sale.

Prohibits the sale, offering or exposing for sale of agricultural and vegetable seeds.

- Unless the test for germination shall have been completed within a 9-months period, exclusive of the month in which the test was completed.
- Containing primary noxious weeds subject to tolerances prescribed in the rules and regulations.

NOXIOUS WEEDS

- Primary noxious weeds. Prohibits seed containing any subject to tolerances.  
*Quack grass—Agropyron repens; Canada thistle—Cirsium arvense; Bindweed—Convolvulus arvensis and C. sepium; Perennial sow thistle—Sonchus arvensis; Hoary cress or White top—Lepidium draba; L. repens and Hymenophyssa pubescens; Yellow toadflax—Linaria vulgaris; Russian knapweed—Centaurea picris; Blue flowering lettuce—Lactuca pulchella; Leafy spurge—Euphorbia esula; Camellthorn—Alhagi pseudalhagi; Austrian field cress—Radicula austriaca; Perennial peppergrass—Lepidium latifolium.*
- Secondary noxious weeds.  
*Alkali mallow—Sida hederacea; Corn cockle—Agrostemma githago; Docks—Rumex spp.; St. Johnswort—Hypericum perforatum; Dodder—Cuscuta spp.; Fanweed—Thlaspi arvense; Poverty weed—Iva axillaris; Wild mustard—Brassica species; Plantain—Plantain species; Perennial ground cherry—Physalis subglabrata.*

"STOP SALE" orders for any lot of agricultural or vegetable seeds may be issued and enforced by the Director of Agriculture if he finds or has reason to suspect the seed is in violation of any of the provisions of this act, prohibiting further sale of said seed until he has evidence that the law has been complied with. No "Stop Sale" order shall be issued or attached without first giving the owner or custodian an opportunity to comply with the law or to withdraw the seed from sale. The owner or custodian shall have the right to appeal from such order to a court of competent jurisdiction, praying for a judgment as to the justification of said order and for the discharge of said seed from the order in accordance with the findings of the court.

SEIZURE. Any lot of agricultural or vegetable seed not in compliance with the provisions of the seed law shall be subject to seizure on complaint of the Director of Agriculture to a court of competent jurisdiction in the area in which the seed is located. If the court finds it in such violation and orders the condemnation of said seed it shall be denatured, processed, destroyed, relabeled or otherwise disposed of in compliance with the laws of the state. No such disposition of said seed shall be ordered without

first having given the claimant an opportunity to apply to the court for the release of said seed or permission to process or relabel it to bring it into compliance with the act.

SCREENINGS. Any screenings or other material removed in the cleaning of agricultural, turf or vegetable seeds containing "Noxious weed" seeds are declared to be a menace to agriculture, and by agreement with the owner may be destroyed. Said screenings may be ground or treated in a manner approved by the Director of Agriculture that will destroy the viability of the seed before it can be used for feeding purposes. Any screenings not ground or treated may be removed from the cleaning establishment only under permit issued by the Director of Agriculture and shall be labeled "SCREENINGS CONTAINING NOXIOUS WEEDS. UNFIT FOR PLANTING OR FEEDING PURPOSES IN WASHINGTON."

SEED LABORATORY AND TESTS

Seed Laboratory, Dept. of Agronomy, State College of Washington, Pullman, Washington, E. G. Schafer in charge. Dwight D. Forsyth, see analyst, State Dept. of Agriculture, Olympia, Wash.  
Tests. One free test (purity and germination) will be made per year for any person residing in the state. Additional tests will be charged as follows:

FOR PURITY

- Peas, beans, vetches, cereals, beets, mustards, cabbage, melons, parsnips and carrots .....\$0.50
- Alfalfa, clovers, wheatgrasses, ryegrasses and timothy..... 1.00
- Bentgrasses, bluegrasses, orchard grass, fine fescues ..... 2.00
- Seed mixtures containing two species when the lesser of the two species consists of more than five percent (5%) of the total..... 3.00
- Charges shall be made according to time required to make tests of mixtures of more than two species, for dirty samples and screenings.

FOR GERMINATION TESTS

- Seeds in purity groups (1) and (2)...\$0.50
- Seeds in purity group (3)..... 1.00
- Charges for germination of mixtures shall be the sum of the charges for germinating each single species as given above.

ENFORCEMENT AND REGULATIONS

Director of Agriculture, Walter J. Robinson, Olympia, Washington.  
Charles D. Gaines, State Seed Inspector.

License

An annual license, fee \$10.00, must be obtained from the Director of Agriculture for each separate place of business. License expires Dec. 31st of each year.  
Merchants selling only seeds in sealed packages of 8 ounces or less are exempt from license fee provided seed packages bear name and address of packator who is licensed.

WEST VIRGINIA  
Law 1937 Regulations of 1941

INFORMATION REQUIRED ON  
ANALYSIS TAG OR CONTAINER

- (A) Agricultural Seeds. Every lot.
- Commonly accepted name of: (Regulation).  
(a) Kind,  
(b) Variety, or  
(c) Type.
  - Percentage of pure seed.
  - Percentage of weed seed (prohibit 3%).
  - Percentage of other agricultural seeds. (Regulation.)
  - Percentage of: (Regulation.)  
(a) Germination, exclusive of hard seeds.

- Hard seeds.
  - Month and year of test.
- Following a & b "Total" may be shown if desired.
- Origin of red clover, alsike clover and alfalfa.
  - Name and address of vendor.
  - Name and number per ounce of each kind of noxious weed seeds present in excess of:  
(a) One in each 5 grams. (See page 106, group A.)  
(b) One in each 25 grams.  
(c) One in each 100 grams.

(B) Mixtures (All mixtures — Regulations). Every lot.

- That such seed is a mixture.
  - Name and percentage of each kind of agricultural seed present in excess of 5% of the total mixture.
  - Percentage of weed seeds (prohibit 3%).
  - For each kind of agricultural seed mentioned in (2) give percentage of:  
(a) Germination, exclusive of hard seeds.  
(b) Hard seeds.  
(c) Month and year of test.
- Following a & b "Total" may be given if desired.
- Origin of red clover, alsike clover and alfalfa. (Regulation.)

- (6) Name and address of vendor.  
(7) Name and number per ounce of each kind of noxious weed seed present. (Regulation.)

**C) Vegetable seeds included in agricultural seed. Label as under (A).**

(See page 102 for germination standards.)

**Prohibits the sale, offering or exposing for sale of agricultural seed:**

- (1) Containing quack grass, Canada thistle, dodder and perennial sow thistle if present in excess of one seed in five grams.  
(2) Containing in excess of 3% of weed seeds.

**NOXIOUS WEEDS**

Wild onion—Allium vineale; Johnson grass—Sorghum halepense; hawk weed—Hieracium species; buckhorn—Plantago lanceolata; English charlock or wild mustard—Brassica arvensis; corn cockle—Agrostemma githago; ox-eye daisy—Chrysanthemum leucanthemum; Indian mustard—Brassica juncea; star thistle—Centaurea solstitialis; wild carrot—Daucus carota; galinsoga—Galinsoga parviflora.

**PROHIBITED WHEN IN EXCESS OF ONE IN 5 GRAMS:**

Quack grass—Agropyron repens; Canada this-

tle—Carduus arvensis; dodder—Cuscuta species; sow thistle—Sonchus species.

**SEED LABORATORY**

Department of Agriculture, Charleston, West Virginia.

Marvin H. Snyder, Seed Analyst.

**TESTS**

No charge will be made for the first ten tests for any farmer, dealer, person or firm. All in excess of 10, the following charges shall be made. Purity, 50c for red, white and mammoth clovers, alsike, wheat, alfalfa, timothy, corn, soybeans, rye, buckwheat, oats, flax, kaffir corn, millet, sorghum, field peas and vetch. Purity, \$1.00 for red top, Kentucky and Canada blue grass, fescues, rough-stalk meadowgrass. Purity, \$2.00 for lawn grass mixtures and complex field seed mixtures. All germination tests, 25c each.

**ENFORCEMENT AND REGULATIONS**

Department of Agriculture.

J. B. McLaughlin, Commissioner.

Certificates of Registration must be obtained from the Commissioner of Agriculture for each kind of agricultural or vegetable seed offered for sale. Application for certificate must be accompanied by fee of \$5.00 for each kind and a certified copy of the complete information required on the analysis tag.

Certificates are void on June 30th, next—succeeding the issuance thereof.

Registration may be refused or cancelled (1) if the application does not contain the complete information required; (2) if vegetable seeds do not meet the minimum requirements of germination. (See page 118 for germination standards). (3) If agricultural seed or mixtures contain quack grass, Canada thistle, dodder species or perennial sow thistle in excess of five per ounce. (4) If such seeds or mixtures contain more than 3% by weight of weed seeds. (5) If seeds found on the market are improperly labeled or do not meet the guarantee of the seedsmen. (6) If it is found by the Department laboratory that the labels do not show the correct purity germination and noxious weed seed content. (7) Any seed registered in violation of the law or rules and regulations.

**CERTIFIED SEED.** Seed that has been produced and labeled in accordance with the procedures and in compliance with the rules and regulations of an officially recognized seed-certifying agency.

**HYBRID SEED CORN.** The first generation seed of a cross produced by controlling the pollination, and by combining two, three or four inbred lines, or by combining one inbred line or a single cross with an open-pollinated variety. Hybrid designations shall be treated as variety names.

**WISCONSIN**

**Law and Regulations of 1941**

**INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER**

**(A) Agricultural Seeds (Unmixed). Every lot.**

- (1) Commonly accepted name or kind, variety or type.
- (2) Lot or identification number.
- (3) Percentage of purity.
- (4) Percentage of inert matter.
- (5) Percentage of weed seeds. Prohibits, if in excess of 5%, except ragweed and foxtail which may be present up to 10%, including other weeds, singly or collectively.
- (6) Percentage of other agricultural seed.
- (7) Percentage of:
  - a. Germination, including hard seeds.
  - b. Hard seeds.
  - c. Month and year of test. Test shall have been completed within a twelve month period, exclusive of the month in which it was completed.
- (8) Origin of alfalfa, seed grains and corn.
- (9) Name and address of the person who labeled the seed, or who sells, offers or exposes said seed for sale.
- (10) Name and number per ounce of each kind of secondary noxious weed seeds present singly or collectively in excess of:
  - a. 1 in each 25 grams of redtop, Canada blue grass, Kentucky blue grass and seeds of similar size and weight, or smaller, and mixtures of such seeds.
  - b. 1 in each 50 grams of timothy, orchard grass, reed canary grass, smooth brome grass, alsike, white and red clovers, rape, alfalfa, sweet clover, rye grasses, millets, flax and seeds of similar size and weight and mixtures of such seeds.
  - c. 1 in each 150 grams of sudan, proso, and seeds of similar size and weight, and mixtures of such seeds.
  - d. 1 in each 300 grams of sorghums, buckwheat and seeds of similar size and weight, and mixtures of such seeds.
  - e. 1 in each 500 grams of vetches, cereals, field corn, beans, field and canning peas, cowpeas and seeds of similar size and weight and mixtures of such seeds.

(10) Name and number per ounce of each kind of secondary noxious weed seeds present singly or collectively in excess of:

- a. 1 in each 25 grams of redtop, Canada blue grass, Kentucky blue grass and seeds of similar size and weight, or smaller, and mixtures of such seeds.
- b. 1 in each 50 grams of timothy, orchard grass, reed canary grass, smooth brome grass, alsike, white and red clovers, rape, alfalfa, sweet clover, rye grasses, millets, flax and seeds of similar size and weight and mixtures of such seeds.
- c. 1 in each 150 grams of sudan, proso, and seeds of similar size and weight, and mixtures of such seeds.
- d. 1 in each 300 grams of sorghums, buckwheat and seeds of similar size and weight, and mixtures of such seeds.
- e. 1 in each 500 grams of vetches, cereals, field corn, beans, field and canning peas, cowpeas and seeds of similar size and weight and mixtures of such seeds.

**(B) Mixed Agricultural Seeds. Every lot.**

Same as for unmixed agricultural seed, except that it must be called "Mixed" or a "Mixture," and the information required under items (A) 1, 3 and 7 shall be given for each agricultural seed present in excess of 5%.

**(C) Vegetable seeds. Every lot.**

- (1) Name of kind and variety.
- (2) For seed which germinates less than the standard last established by the department. (See page 102 for standards.)
  - a. Percentage of germination.
  - b. Month and year of test. Test shall have been completed within a twelve month period, exclusive of the month in which it was completed.
  - c. Marked "BELOW STANDARD" in not less than 8-point type.

**Prohibits the sale, offering or exposing for sale of—**

- (A) Agricultural seeds containing primary noxious weeds subject to tolerances.
- (B) Agricultural seeds containing secondary noxious weeds, singly or collectively, in excess of:
  - 1 seed in 5 grams of the agricultural seeds listed in A-10-a.
  - 1 seed in 10 grams of the agricultural seeds listed in A-10-b.
  - 1 seed in 25 grams of the agricultural seeds listed in A-10-c.
  - 1 seed in 50 grams of the agricultural seeds listed in A-10-d.
  - 1 seed in 100 grams of the agricultural seeds listed in A-10-e.
- (C) Any agricultural seed containing in excess of 5% of weed seeds, except ragweed (Ambrosia elatior) and foxtail (Chaetochle spp.), which may be present either singly or collectively at a rate not to exceed 10%, if the total weed seed content does not exceed 10%.
- (D) Any agricultural or vegetable seed unless the test for germination shall have been completed within a 12 month period, exclusive of the month in which the test was completed.
- (E) Any alfalfa seed represented to be Grimm, Cossack or Ladak variety and any field seed corn represented to be hybrid, unless such seed is certified as to variety by a seed certifying agency which is approved by the department as satisfactory for the performance of seed certification and the official tag of such agency is properly attached to each container.

**NOXIOUS WEEDS**

**(A) Primary Noxious Weeds.**

**PROHIBIT SEED CONTAINING ANY SUBJECT TO TOLERANCES.**

Field bindweed—Convolvulus arvensis; Leafy spurge—Euphorbia esula; Canada thistle—Cirsium arvense; Quack grass—Agropyron repens.

**(B) Secondary Noxious Weeds.**

Dodders—Cuscuta spp.; Wild mustard—Brassica arvensis; Indiana mustard—Brassica juncea; Buckhorn—Plantago lanceolata; Ox-eye daisy—Chrysanthemum leucanthemum; Perennial sow thistle—Sonchus arvensis.

**"STOP SALE"**

Whenever the department or any of its duly qualified inspectors shall find in any warehouse, store, freight depot, car, truck or place of business, a lot of seed which appears to be offered for sale in violation of the seed laws of this state or regulations promulgated by this department, the inspector shall obtain fair and representative samples of such seed, mark the same for identification, and forward the same to the department for analysis. At the time of obtaining the samples, the inspector shall notify the owner or custodian of such seed in writing that the sale thereof appears to be in violation of law. The lot of seed shall not thereafter be sold or removed from the premises with-

out permission or release by the department. The department shall cause an analysis to be made of such seed and report its findings to the owner or custodian of the seed. The analysis and report shall be made within 15 days of the date of taking the sample.

If it shall appear, from the official laboratory examination of any lot of seed, that it does not meet the requirements of the statute or is not labeled in accordance with the provisions of the seed law of the state or regulations promulgated by the department, the vendor of such seed shall be notified and be given an opportunity for a hearing under the rules and regulations of the department.

**SEED LABORATORY AND TESTS**

State Seed Laboratory, Agronomy Building, Madison, Wisconsin.

Henry Lunz, Analyst in charge.

Fees for testing seed—25 cents, except mixtures which shall be 25 cents for each component present in excess of 5%.

**ENFORCEMENT**

Department of Agriculture and Markets, Ralph E. Ammon, Director, State Capitol, Madison, Wisconsin.

Seed and Weed Control Section, Henry Lunz.

**Permit.**

No person shall sell, offer or expose for sale in Wisconsin any agricultural or vegetable seeds without securing a permit from the Department of Agriculture, a separate permit is required for each place of business, fee \$1.00.

Permit not required for:

- a. Persons selling, offering or exposing for sale, seed of their own production, provided it is sold and delivered to the purchaser only on the farm or premises where grown.
- b. Persons selling seed which has been packaged and distributed by seedsmen having permit.

**REGULATIONS**

1. The Wisconsin Agricultural Experiment Association is approved as the agency satisfactory for the performance of seed certification in Wisconsin. In other states and in Canada the department approves that agency officially recognized by the department of agriculture of that state or province as satisfactory for the performance of seed certification.
2. White Blossom Sweet Clover seed containing 5% or more of mottled seed shall not be labeled as White Blossom Sweet Clover seed but shall be labeled Sweet Clover seed.
3. Seed containing hard seed shall be labeled by one of the following methods:
  - a. Germination ....% including ....% hard seed.
  - b. Germination including hard seed .....%  
Hard seed .....%
  - c. Germination .....%  
Hard seed .....%  
Germination and hard seed .....%
4. The methods and procedures used in making purity analyses and germination tests shall be those adopted by the U. S. Department of Agriculture in the administration of the Federal Seed Act.



## WYOMING

Law of 1941

### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER.

- (A) **Agricultural Seeds. Five pounds or more.** (C) **Vegetable Seeds. Five pounds or over.**

1, 3 and 7 shall be given for each kind or variety present in excess of 5%.

Label as agricultural seeds. (A)

- (1) Commonly accepted name of:
  - a. Kind and variety or,
  - b. Kind and type.
- (2) Lot number or other lot identification.
- (3) Percentage of pure seed.
- (4) Percentage of inert matter.
- (5) Percentage of common weed seeds.
- (6) Percentage of other agricultural seeds.
- (7) Percentage of:
  - a. Germination.
  - b. Hard seeds.
  - c. Month and year of test.
- (8) Origin of seed.
- (9) Full name and address of person, firm or corporation selling, offering, exposing or transporting seeds for sale.

- (B) **Mixed Agricultural Seeds. Five pounds or more.**

Same as for unmixed agricultural seeds, except that the requirements under items (A)

### Prohibits the sale, offering or exposing for sale or distribution of—

Agricultural or vegetable seed containing any of the seeds of the named perennial noxious weed seeds.

### NOXIOUS WEEDS

Cocoa grass—*Cyperus rotundus*; horse nettle—*Solanum carolinense*; Austrian field cress—*Roripa austriaca*; camel thorn—*Alhagi camelorum*; Canada thistle—*Cirsium arvense*; field bindweed—*Convolvulus arvensis*; leafy spurge—*Euphorbia esula*; perennial ragweed—*Ambrosia psilostachya*; perennial sow thistle—*Sonchus arvensis*; quack grass—*Agropyron repens*; Russian knapweed—*Centaurea repens*; St. John's wort—*Hypericum perforatum*; whitetop—*Lepidium repens* and draba; flowering spurge—*Euphorbia corollata*; ox-eye daisy—*Chrysanthemum leucanthemum*; spreading dogbane—*Apocynum androsaemifolium*; yellow cress—*Roripa sylvestris*; White leaved Franseria—*Franseria discolor*; Austrian pea-weed—*Swainsona salsula*; lance-leaved sage, *Salvia lanceolata*.

“STOP SALE” any agricultural or vegetable seeds containing noxious weed seeds shall be removed from sale and impounded by the Commissioner of Agriculture, his duly authorized seed inspectors or agents and shall be released only upon the following conditions:

- a. Complete destruction.
- b. Removal outside the boundaries of the state.
- c. Recleaned so that no noxious perennial weed seeds are present.

SCREENINGS of any seeds or grains offered or exposed for sale shall be labeled as such and not sold as seed. They shall be free of noxious, perennial weed seeds. Screenings found to contain noxious weed seeds shall be subject to seizure and destruction by the Commissioner of Agriculture, his duly authorized agents or inspectors.

## FEDERAL SEED ACT—INTERSTATE COMMERCE

August 1939

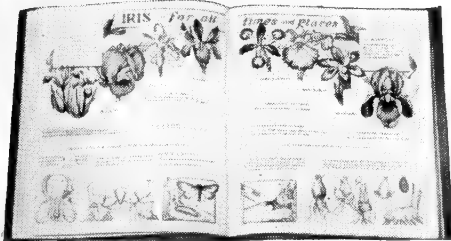
### INFORMATION REQUIRED ON ANALYSIS TAG OR CONTAINER

- (A) **Agricultural seeds (unmixed)**  
Every lot, effective February 1940

1. Name of:
  - (a) Kind or
  - (b) Kind and variety or
  - (c) Kind and type.
2. Lot number or other identification.
3. Percentage of pure seed.
4. Percentage of other crop seed.

5. Percentage of inert matter.
6. Percentage of weed seeds.
7. Name of noxious weed seed and rate of occurrence expressed in accordance with and not to exceed the rate allowed by the law and regulations of the State into which the seed is transported.

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**KANSAS CITY, MO.**

8. Percentage of germination exclusive of hard seeds.
9. Percentage of hard seeds if present.
10. Calendar month and year germination test was completed. No more than 5 calendar months shall have elapsed between the last day of the month in which the germination test was completed and the date of transportation or delivery for transportation in interstate commerce. (Regulation.)
11. Origin of alfalfa, red clover and field corn except hybrid corn: if unknown, that fact shall be stated. Whenever such seed originates in more than one State, the name of each State and the percentage of seed originating in each State shall be given in the order of its predominance. (Regulation.)
12. Name and address of person transporting the seed in interstate commerce or the name of person to whom the seed is shipped together with the code designation of the shipper.

## (B) Mixtures

As unmixed except that the information required under items 1, 3, 8, 9, 10 and 11 shall be given for each agricultural seed component present in excess of 5% of the whole.

## (C) Vegetable seeds—Effective August, 1940

1. Name of kind and variety.
2. Name and address of person who transports the seed in interstate commerce or the person to whom the seed is shipped, together with the code designation of the shipper. For seed which germinates less than the Standard established by the Secretary of Agriculture:
3. Percentage of germination exclusive of hard seed.
4. Percentage of hard seed, if present.
5. Calendar month and year the test was completed. No more than 5 calendar months shall have elapsed between the last day of the month in which the germination test was completed and the date of transportation or delivery for transportation in interstate commerce. (Regulations.)
6. The words "Below Standard" in 8 point type.

**CERTIFIED OR REGISTERED SEED.**—The terms "certified seed" and "registered seed" mean seed that has been produced in accordance with the procedures and in compliance with the rules and regulations of an officially recognized seed-certifying agency.

**HYBRID SEED CORN.**—The term "Hybrid seed corn" means the first-generation seed of a cross produced by controlling the pollination, and by combining two, three, or four inbred lines, or by combining an inbred line or a single cross with an open-pollinated variety. Hybrid designations shall be treated as variety names.

**RECORDS.**—Each person handling agricultural seed subject to the act shall keep for a period of 3 years a complete record of each lot of agricultural seed handled, except that any seed sample may be discarded 1 year after the entire lot represented by such sample has been disposed of by such person.

**SCREENINGS.**—Screenings of any seed subject to this Act, unless they are not intended for seeding purposes; and it is stated on the label, if in containers, or on the invoice if in bulk, that they are intended for cleaning, processing, or manufacturing purposes, and not for seeding purposes, shall not be shipped in interstate commerce. The term "screenings" means

chaff, sterile florets, immature seed, weed seed, inert matter, and any other materials removed in any way from any seeds in any kind of cleaning or processing and which contains less than 25% of live agricultural or vegetable seeds.

## AGRICULTURAL MARKETING SERVICE ANNOUNCEMENTS:

Aug. 24, 1940—The use of "Affidavit Grimm Alfalfa" phrase is prohibited. The word "affidavit" is not a part of the name of the kind, type or variety which is required to be stated on the label.

Sept. 23, 1940—Labeling Sweet Clover: If there is any uncertainty as to the proportion of sweet clover that is white blossom, the seed should be labeled as to kind only; namely, sweet clover. It is suggested that shippers of domestic sweet clover seed in interstate commerce will be adequately protected if they assume that yellow blossom sweet clover is present in the seed in a quantity four times the quantity of mottled seeds present. For example, if a sample of sweet clover contains 1.3% of mottled seed, it should be considered to contain 5.2% yellow blossom sweet clover. The seed, therefore, should be labeled as sweet clover or in such a manner as to show that it is a mixture consisting of white blossom and yellow blossom sweet clover and the percentage of each. Yellow blossom sweet clover is considered "other crop seed" when present in seed labeled "white blossom sweet clover."

Aug. 6, 1941—The importation of mixtures, in any combination, of seed of suckling clover (*Trifolium dubium*), white clover (*Trifolium repens*), or cluster clover (*Trifolium glomeratum*), for planting is not detrimental to the use of such seeds.

Sept. 1940—Service tests on seeds in the Washington laboratory of the Agricultural Marketing Service has been discontinued because of the amount of routine testing and other activities required in the administration of the Federal Seed Act. The extent of service testing in the Federal-State seed laboratories is to be determined by the officials of the states in which the laboratories are located.

## UNIT WEIGHTS FOR USE IN INTERSTATE COMMERCE

Weights for PURITY TEST		Unit Weight for Noxious Weed Determination
1 gram	Agrostis spp., Poa spp., Rhodes grass, Bermuda grass	25 grams
2 grams	Timothy, orchard grass, fescues (except meadow fescue) alsike and white clover, carrot, reed canary grass, Dallis grass	50 grams
5 grams	Rye grass, meadow fescue, foxtail millet, alfalfa, red clover, sweet clover, les- pedeza	50 grams
10 grams	Smooth brome, crimson clover, Brassica spp., flax, Agropyron spp.	50 grams
25 grams	Proso, Sudan grass	150 grams
50 grams	Sorghums, buckwheat, beet	300 grams
100 grams	Vetches, cereals (except corn)	500 grams
500 grams	Corn, beans, peas, cow- peas, soybeans	500 grams

## DISTRICT OF COLUMBIA

**Federal Seed Act—Interstate Commerce  
1939**

### INFORMATION REQUIRED ON ANALYSIS TAG.

#### (A) Agricultural seeds (unmixed). Every lot.

Same requirements as under the Federal Seed Act except for labeling:  
Noxious weeds.

Give name and number per ounce.

#### (B) Mixtures of Agricultural Seeds. Every lot.

Same requirements as under the Federal Seed Act except for labeling:  
Noxious weeds.

Give name and number per ounce.

#### (C) Vegetable Seeds. Every lot.

Same requirements as under the Federal Seed Act.

### NOXIOUS WEEDS.

Bermuda grass—*Cynodon dactylon*  
Bindweed—*Convolvulus arvensis*  
Canada thistle—*Cirsium arvense*  
Quack grass—*Agropyron repens*  
Wild onion—*Allium vineale*

# Vegetables at a Glance

A digest of the leading varieties for commercial and home use

## BEANS

Variety	Season	Plant	Pod		Seed Color
			Shape	Color	
Asgrow Stringless	Early	Bush, large	Straight, round	Med. green	Mottled purple
Tendergreen	Early	Bush, large	Straight, oval	Deep green	Black
Black Valentine	Mid	Pole, large	Round, straight	Med. green	Ivory white
Stringless	Early	Bush, medium	Straight, flat	Light green	Straw
Blue Lake	Early	Bush, medium	Curved, round	Med. green	Coffee-brown
Bountiful	Late	Pole, large	Straight, round	Med. green	Mottled buff
Burpee's Stringless	Early	Pole, large	Near straight	Bright green	Ivory white
Cornfield	Late	Bush, medium	Straight, broad	Green and carmine	Mottled red
Decatur	Early	Bush, large	Straight, round	Med. dark green	Mottled brown
French's Hort.	Late	Bush, medium	Straight, round	Med. green	Yellowish brown
Full Measure	Early	Bush, large	Straight, round	Med. green	Mottled white
Giant Stringless	Early	Bush, medium	Sl. curved, round	Waxy yellow	Black
Golden Wax	Early	Bush, medium	Straight, oval	Silvery green	Black
Ideal Market	Early	Pole, medium	Curved, round	Med. green	Buff
Kentucky Wonder	Mid	Pole, large	Curved, round	Med. green	White, black eye
Kidney Wax	Mid	Bush, medium	Curved, oval	Med. yellow	White
Lazy Wife	Late	Pole, medium	Clusters, oval	Med. green	Mottled Red
London Hort.	Late	Pole, large	Curved, thick	Dark green splashed	Ivory
McCaslan	Mid	Pole, large	Curved, thick flat	Med. green	Black
Pencil Pod	2nd Early	Bush, medium	Curved, round	Med. yellow	Black
Plentiful	Early	Bush, medium	Straight, flat	Light green	Black
Rd. Pod Kid. Wax	Mid	Bush, large	Sl. curved, round	Med. yellow	White, black eye
Red Valentine	2nd Early	Bush, medium	Curved, round	Med. green	Mottled buff
Refugee Stringless	Late	Bush, large	Straight, round	Light green	Mottled purple
Sure Crop	2nd Early	Bush, large	Straight, thick	Deep yellow	Black
Tenn. Green Pod	Early	Bush, medium	Very large, stringy	Dark green	Med. brown
Webber Wax	Early	Bush, dwarf	Straight, flat	Bright yellow	Yellowish buff
Wht. Creaseback	Mid	Pole, medium	Sl. curved, round	Med. green	Ivory

## GARDEN CORN

Variety	Season	Ears				Stalk in Feet
		Color	Length Inches	Rows	Type	
Adams Extra Early	Early	White	6	12-14	Roasting	5
Alameda	Main	White	7	12-16	Sweet	5
Bantam Evergreen	Late	Yellow	8	14-18	Sweet	7
Black Mexican	Main	White	8	8	V. sweet	7
Charlevoix	Main	Yellow	6 1/2	10-12	Sweet	5 1/2
Country Gentleman	Late	White	7 1/2	Zig-zag	Sweet	7
Early Evergreen	Late	White	7 1/2	16-20	Sweet	7
Early Market	Early	White	6	10-12	Sweet	4 1/2
Golden Bantam	Main	Yellow	6	8	Sweet	5
Golden Bantam Improved	Main	Yellow	7	10-14	Sweet	5 1/2
Golden Cross Bantam*	Main	Yellow	8	12-14	Sweet	6 1/2
Golden Early Market	Early	Yellow	7	10-14	Sweet	4 1/2
Honey June	Late	White	8	12-16	Semi-sweet	8
Howling Mob	Main	White	7 1/2	12-16	Sweet	7
Ioana*	Main	Yellow	7 1/2	12-14	Sweet	7
Marcross*	Early	Yellow	7	12-16	Sweet	5
Mossheart	Late	Yellow	8	14-18	Near sweet	8
Oregon Evergreen	Late	White	8	12-14	Sweet	7
Spancross*	Early	Yellow	6 1/2	10-14	Sweet	5 1/2
Stowell's Evergreen	Late	White	9	16-18	Sweet	8
Surcropper	Late	White	7	10-14	Semi-sweet	7
Tendergold*	Main	Yellow	7 1/2	12-14	Sweet	6
Truckers' Favorite	Main	White	7 1/2	12-16	Roasting	6
Whipple's Early Yellow	Main	Yellow	7	12-16	Sweet	6

\*—A hybrid variety.

## GARDEN PEAS

Variety	Season	Wilt*	Plant		Pod			Seed	Similar Strains
			Inches	Color	Shape	Color	Inches		
Alaska	1st Early	w. r.	28	Light	Blunt	Light	2 1/2	Smooth	Telephone
Alderman	Main	w. r.	50	Dark	Pointed	Dark	4 1/2	Wrinkled	
Amer. Wonder	Early	w. r.	12	Dark	Blunt	Light	2 1/2	Wrinkled	
Bountiful	1st Early	w. r.	30	Med.	Pointed	Med.	3	Dimpled	Ameer
Champion of Eng.	Late	w. r.	50	Med.	Blunt	Light	3	Wrinkled	
Dwf. Telephone	Late	w. r.	24	Light	Pointed	Light	4 1/2	Wrinkled	
Everbearing	Late	w. r.	28	Dark	Blunt	Light	3	Wrinkled	{No. 40. Icer. Wy. Wonder.
Giant Stride	Late	w. r.	26	Dark	Pointed	Dark	4 3/4	Wrinkled	
Gilbo	Main	w. r.	26	Dark	Pointed	Dark	4 1/2	Wrinkled	
Gradus	Early	w. r.	32	Med.	Pointed	Med.	4	Wrinkled	Early Bird
Hundredfold	Early	w. r.	20	Dark	Pointed	Dark	4	Wrinkled	
Laxtonian	Early	w. r.	16	Dark	Pointed	Dark	4 1/4	Wrinkled	
Lax's Progress	Early	w. r.	15	Dark	Pointed	Dark	4 1/2	Wrinkled	First & Best
Lax's Superb	Early	w. r.	17	Light	Pointed	Med.	4	Dimpled	
Little Marvel	Early	w. r.	18	Dark	Blunt	Dark	3	Wrinkled	
Marrowfat Wh.	Late	w. r.	50	Med.	Blunt	Light	3	Smooth	First & Best
Morse's Market	Main	w. r.	26	Med.	Pointed	Dark	4 1/2	Wrinkled	
Nott's Excelsior	Early	w. r.	15	Dark	Blunt	Light	2 3/4	Wrinkled	
Onward	Main	w. r.	26	Light	Blunt	Dark	2 3/4	Wrinkled	First & Best
Pedigree Ex. Ey.	1st Early	w. r.	26	Light	Blunt	Light	2 1/2	Smooth	
Pilot	Early	w. r.	30	Med.	Pointed	Med.	3 1/2	Smooth	
Premium Gem	Early	w. r.	22	Dark	Blunt	Light	2 3/4	Wrinkled	First & Best
Stratagem	Late	w. r.	26	Dark	Pointed	Dark	4 1/2	Wrinkled	
Teton	Main	w. r.	32	Dark	Blunt	Dark	3 3/4	Wrinkled	
Thomas Laxton	Early	w. r.	34	Dark	Blunt	Dark	3 1/2	Wrinkled	First & Best
World's Record	Early	w. r.	24	Light	Pointed	Med.	3 1/2	Wrinkled	

\*w. r.—Resistant to Fusarium wilt.

LECKENBY SEED CO.

SEATTLE

*Growers*

PUGET  
SOUND  
SEEDS

Growing Station

MOUNT VERNON, WASH.

DWARF ESSEX

RAPE

KOHL RABI

RUTABAGA

MUSTARD

SPINACH

CABBAGE

TURNIP

BEET

KALE



Specialists in

**YELLOWS**



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**CABBAGE SEED GROWING**

Our company is the only organization devoted exclusively to the development and improvement of Yellows Resistant Strains of Cabbage. We are carrying on in a commercial way the Yellows Resistant work started in 1910 by Professor L. R. Jones of the University of Wisconsin.

We maintain extensive breeding grounds and an air-conditioned warehouse in the heart of the Yellows area of Racine County, Wis.

Order your seed in our 1-pound special bags and save loss by repackaging. Send for catalog and complete information.

**WISCONSIN CABBAGE SEED CO.**

RACINE, WISCONSIN, U. S. A.

# PETER SLUIS

Wholesale Vegetable  
Seeds

Mount Vernon, Wash.

Spinach

Chinese Cabbage

Beet

Turnip

Rutabaga

and

Cabbage

of high-bred quality for your  
critical trade.

MT. VERNON

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Grown by

### GARWOOD

for your most

### CRITICAL MARKET TRADE

We are growing

IMPROVED STRAINS

of all the leading

COMMERCIAL VARIETIES

CANTALOUPE-MUSKMELON

HONEYBALL-HONEYDEW

CUCUMBER-WATERMELON

SWEET SPANISH ONION

Ask for Dealers List

H. D. GARWOOD SEED CO.  
ROCKY FORD - COLORADO

"The Home of the Cantaloupe"

## CABBAGE

Variety	Season	Shape	Diam. Inches	Weight in lbs.	Yellows-resistant Strain
All Head	Mid	Med. flat	9	6	All Head Select
All Season	Mid	Flat globe	9	8	Wisc. All Season
Amer. Drumhead	Late	Flat	12	11	
Charleston Wakefield	Early	Conical	6½	4	Racine Market
Copenhagen Market	Early	Globe	6	3½	Marion Market
Early Flat Dutch	Mid	Flat	11	10	
Early Round Dutch	Mid	Globe	7½	4½	
Glory of Enkhuizen	Mid	Globe	8	6	Improved Globe
Golden Acre	Early	Globe	6	3	Resist. Gold Acre
Green Acre	Early	Globe	6	3	
Hollander	Late	Globe	7½	6½	Wisc. Hollander
Jersey Wakefield	Early	Conical	5	2½	Jersey Queen
Mammoth Red Rock	Late	Globe	7	7	Red Hollander
Midseason Market	Mid	Globe	8	6	
Penn. State	Late	Flat globe	7½	5½	
Prem. Late Dutch	Late	Flat	10	8	
Red Dutch	Late	Globe	7	7	
Savoy Perfection	Mid	Globe	7	6	
Succession	Mid	Flat globe	10	8	
Winningstadt	Mid	Conical	6	3½	

## LETTUCE

Variety	Season	Type	Size	Outer Color	Seed	Use
Big Boston	Mid	Butter head	Medium	Dark green	White	Local
Brown Dutch	Mid	Butter head	Medium	Dark green	Black	Home
Chicken	Mid	Non-heading	Very tall	Dark green	White	Chickens
Dark Green Cos	Mid	Cos	Med. large	Dark green	White	Home
Grand Rapids	Early	Loose	Large	Light green	Black	Forcing
Hanson	Mid	Cabbage	Large	Yellow green	White	Local
Iceberg	Late	Cabbage	Large	Light green	White	Local
Imperial F	Late	Cabbage	Medium	Bright green	White	Shipping
Imperial D	Late	Cabbage	Medium	Bright green	White	Shipping
Imperial 44	Late	Cabbage	Med. large	Light green	White	Shipping
Imperial 152	Late	Cabbage	Med. large	Light green	White	Shipping
Imperial 847	Late	Cabbage	Med. large	Med. light green	Black	Shipping
Imperial 850	Late	Cabbage	Med. large	Med. light green	White	Shipping
May Queen	Early	Cabbage	Med. large	Light green	White	Forcing
New York	Late	Cabbage	Large	Bright green	White	Shipping
New York 12	Mid	Cabbage	Large	Lighter than N.Y.	White	Shipping
New York 515	Mid	Cabbage	Med. large	Brighter than 12	White	Shipping
Prize Head	Early	Loose	Medium	Tinged brown	White	Home
Salamander	Mid	Butter globe	Medium	Med. green	Black	Local
Simpson b. s.	Early	Loose	Large	Light green	Black	Local
Simpson Ey. Curled	Early	Loose	Med. large	Yellow-green	White	Local
Tennisball	Mid	Butter globe	Medium	Med. green	White	Local
White Boston	Mid	Butter head	Medium	Med. green	White	Local
White Paris	Mid	Cos	Med. large	Med. dark green	White	Local

## ONIONS

	Season	Shape	Exterior Color	Notes
Australian Brown	Mid	Flat globe	Brown	Strong flavor
Brigham Yellow Globe	Mid	Globe	Yellow	Good keeper
Crystal Wax	Early	Flat	White	For S. W. shippers
Early Yellow Globe	Early	Globe	Rich yellow	Good keeper
Ebenezer	Mid	Deep flat	Dk. yellow	For good sets
Golden Globe	Late	Long globe	Rich yellow	Good for sets
Nebuka	Perennial	Bunching	White	Does not bulb
Prizetaker	Mid	Large globe	Lt. yellow	Thin skin
Red Wethersfield	Late Mid	Deep flat	Purple red	For sets & storage
Southport Red Globe	Late Mid	Globe	Purple red	The best red
Southport White Globe	Late Mid	Globe	White	The best white
Southport Yellow Globe	Late Mid	Globe	Orange yellow	Good keeper
Sweet Spanish White	Late Mid	Globe	White	Large size
Sweet Spanish Yellow	Late Mid	Globe	Amber gold	Large size
White Portugal	Mid	Thick flat	White	Pickles & bunching
Yellow Danvers Globe	Mid	Globe	Med. yellow	Standard variety
Yellow Strasburg	Mid	Flat	Yellow	Hardy, keeps well

## MELONS

Variety	Season	Shape	Size Inches	Exterior	Wt. lb.	Flesh	Use, etc.
Banana	Main	Long	20x4	Lemon	7	Salmon	Home
Bender's Surprise	Main	Oval	8x7	Deep furrows	7	Salmon	Local
Burrell's Gem	Main	Long Oval	7x5	Heavy net	3½	Pink	Shipping
Cassaba	Late	Round	8x7	Yellow	6	White	Calif. Shipping
Eden Gem	Early	Globe	5½x5	Thick net	3	Green	Shipping
Emerald Gem	Early	Round	4½x5	Smooth ribs	2¼	Salmon	Home
Fordhook	Early	Oblate	4x5	Netted ribs	2	Salmon-yl.	Home
Hackensack	Early	Round	5x6	Deep furrows	3	Green	Home
Hale's Best	Early	Oval	6x5	Heavy net	4	Salmon	Shipping
Hearts of Gold	Main	Globe	6x6	Netted ribs	2½	Pink	Shipping
Honey Ball	Late	Globe	5x5	Nr. smooth	3½	Green	All-Purpose
Honey Dew	Late	Round	7½x7	Smooth	6	Green	Shipping
Honey Rock	Early	Globe	5½x5	Coarse net	3½	Salmon	Local
Milwaukee Mkt.	Early	Round	7x6	Shallow ribs	5½	Deep Pink	Home
Montreal Mkt.	Main	Round	7x8	Deep ribs	7½	Green	Home
Netted Gem							
(Rocky Ford)	Main	Round	5½x5	Heavy net	2½	Green	Local
No. 45	Main	Oval	6x5	Heavy net	4	Salmon	Shipping
Osage	Main	Oval	7x6	Dark green	5	Salmon	Home
Perfecto, Impd.	Main	Round	6x5	Medium net	3	Orange	Shipping
Pollock 10-25	Main	Globe	6x5½	Thick net	2½	Salmon	Shipping
Pride of Wisc.	Main	Round	6x5½	Sparse net	3½	Orange	Local
Queen of Colo.	Main	Round	6½x6	Coarse net	4	Orange	Local
Tip Top	Main	Oval	7x6	Slight ribs	6	Salmon	Local

\*—Mildew-resistant

# CONDON'S



*Satisfy the Most  
Critical Planters*

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SPECIAL  
DEALER PROPOSITION

**CONDON BROS. SEEDSMEN**

Rock River Valley Seed Farm  
Box AA, ROCKFORD, ILLINOIS

## *Hart's* **SEED**

produced in the cool, dry climate of the  
State of Maine, on disease-free land,  
insures better crops and makes friendly  
customers.



### **Contract Growers for the Seed Trade**

Beans, Peas, Sweet Corn, Open-  
pollinated and Hybrid, Beet, Man-  
gel Beet, Carrot, Cucumber, Dande-  
lion, Onion, Onion Sets, Parsnip,  
Radish, Spinach, Squash, Turnip,  
Sweet Peas, Zinnia.



*Write for Spot and Contract Prices*

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WETHERSFIELD, CONN.

Growing Station—Newport, Maine

## **QUALITY GARDEN SEEDS**

ONION, CARROT

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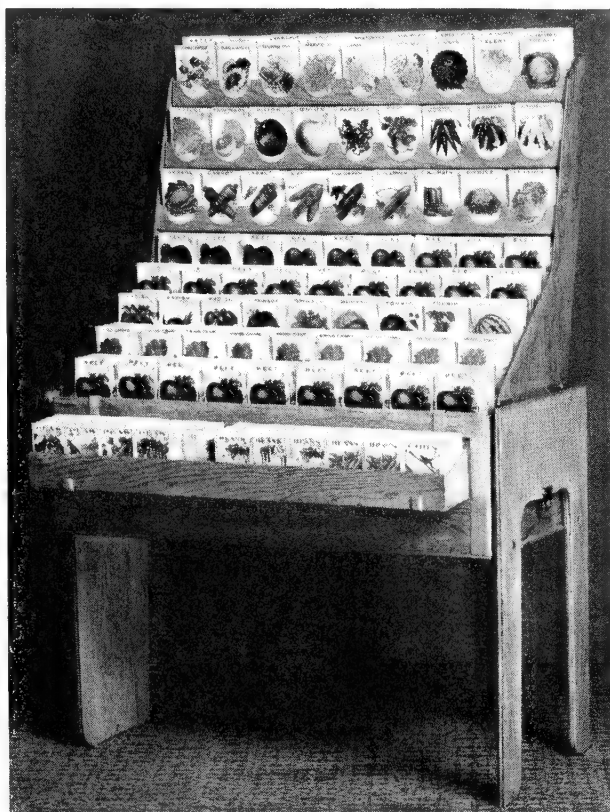
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## DISPLAY EQUIPMENT INCREASES SALES



If you display seeds in Packets

INVESTIGATE *Easyfold* PRODUCTS

This beautiful display rack will increase your sales and  
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Write for descriptive circular

- COMMISSION BOXES ● COUNTER DISPLAYS
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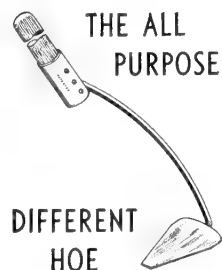
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Make Quick Sure Profits with the

## ALL-PURPOSE HOE

Blade is made of carbon steel, tempered in oil and welded to shank. It is the lightest hoe on the market. The handle of the hoe is 52 inches long. The All Purpose Hoe will please and encourage home gardeners and nurserymen. We will both benefit from this new All Purpose Hoe.

Put Your Order in Now



**EASYFOLD MANUFACTURER**

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625 W. Division Street

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MINNESOTA

# GARDEN SEED

*Growers of*

CABBAGE

BEETS

SPINACH

TURNIPS

RUTABAGA

MANGELS

KALE

RADISH

BRUSSEL SPROUTS

MUSTARD

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*Special Plantings  
of*

WITLOOF CHICORY

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CORN SALAD

# J. A. BOYCE CO.

MOUNT VERNON

WASH.

# STOKES

*will help you with  
your tomato  
problems*

We are one of the few firms  
in the United States devoting  
its entire time to tomatoes, to-  
mato products and tomato  
problems.

## STOKES' VARIETIES:

**MASTER MARGLOBE  
RUTGERS'  
STOKESDALE  
VALIANT**

**Francis C. Stokes Co.**

Breeders & Growers of Fine Tomato Seed

**Vincentown, New Jersey**

## CUCUMBERS

	Use	Season	Spines	Length Inches	Diam. Inches	Color	Shape
A & C	Slicing	Mid	White	8½	2¼	Dark green	Cylindrical
Arlington	Slicing	Early	White	7½	2½	Med. green	Semi-blunt
Boston Pickling	Pickling	Early	Black	6	2¼	Med. green	Slight taper
Chicago Pickling	Pickling	Early	Black	6½	2¼	Med. green	Blunt ended
Clark's Special	Slicing	2nd Early	White	8	2½	Dark green	Tapered, blocky
Colorado	Slicing	Mid	White	8½	2¼	Very dark	Cylindrical
Davis Perfect	Slicing	2nd Early	White	9	2¼	Dark green	Tapered
Early Fortune	Slicing	2nd Early	White	8	2½	Dark green	Slight taper
Gherkin	Pickling	Early	Green	2½	1	Light green	Oval
Long Green, Imp'd.	Slicing	Mid	Black	11	2½	Dark green	Straight, warted
Lemon	Slicing	Mid	Black	3	2½	Lemon	Oval
Longfellow	Slicing	Late	White	12	2½	Very dark	Straight, blunt
Nat. Assn. Pickle	Pickling	Early	Black	6	2½	Dark green	Straight
Snow's Perfection	Pickling	Early	Black	5½	2¼	Dark green	Blunt ended
Stays Green	Slicing	Early	White	7	2¼	Dark green	V. slight taper
Straight-8	Slicing	Mid	White	8	2	Dark green	Cylindrical
Woodruff	Slicing	2nd Early	White	8	2½	Dark green	Taper to ends

## LIMA BEANS

Variety	Plant	Pod			Seeds		
		Length Inches	Width Inches	Seeds Per Pod	Size	Shape	Color
Baby Potato	Bush	2¾	¾	3-4	Small	Thick	Bright green
Burpee Imp'd.	Bush, large	5	1¼	4	Large	Thick, flat	Greenish white
Challenger	Pole	4½	1¼	4	Large	Thick	Pale green
Clark's Bush	Bush, small	2¾	¾	3-4	Small	Oval, flat	Green
Dreer's	Bush, large	3¼	1	3-4	Large	Thick, oval	Greenish white
Florida Butter	Pole	3¼	¾	3	Small	Oval	Buff, speckled
Fordhook	Bush, large	4	1	3-4	Large	Thick, oval	White
Henderson's	Bush, small	2¾	¾	3-4	Small	Oval, flat	White
Jackson Wonder	Bush	3	¾	3-4	Small	Flat	Buff, mottled
King of Garden	Pole	6	1¼	4-5	Large	Thick, flat	White
Large White		4½	1¼	4	Large	Squarish	White
Seibert's Early	Pole	3¼	¾	3-4	Small	Flat	White
Sieva	Pole	3¼	¾	3-4	Small	Flat, oval	White
Small White	Pole	3½	¾	3-4	Medium	Flat	White
Wood's Prolific	Bush	3¼	¾	3-4	Small	Flat, oval	White
Yopp's Prolific	Pole	3½	¾	3-4	Medium	Flat	White



## PEDRICK'S

*High Quality Seeds*

Tomato Asparagus  
Pepper Rhubarb  
Egg Plant Vine Seeds

*Wholesale Growers  
Since 1880*



**GEORGE R. PEDRICK  
& SONS**

PEDRICKTOWN, NEW JERSEY

## PRACTICAL AND SCIENTIFIC MUSHROOM CULTURE—

by L. F. Lambert

Just off the press, containing the  
latest findings of scientific re-  
search on the mushroom culture.

Price \$1.00 with liberal discount  
to dealers.

I have in stock in all seasons the  
most complete line of mushroom  
spawn and mushroom products,  
made fresh every day in the  
world's largest and most modern  
spawn plant and mushroom lab-  
oratories according to the new-  
est processes covered by the  
latest patents.

Serving the American mush-  
room grower for over 50 years  
as the Pioneer and Dean of the  
Industry.

Originator of the Snow White  
mushroom variety, the whitest  
mushroom under cultivation and  
used by 99% of the growers.  
Packed in convenient units for  
mail distribution.

**L. F. LAMBERT**

Coatesville

Pa.

## Michigan Grown Radish Seed

The old Rice Strains at their  
best, Scarlet Globe, Icicle,  
Sparkler's White Tip French  
Breakfast and other choice  
varieties.

## Garden Beans

A select list of the better va-  
rieties in Green and Wax Pod-  
ded Sorts.

## Cucumbers

National Pickling—Especially  
selected and bred for the pickle  
packers. As well as many  
other standard sorts.

We are located in the heart of one of  
the best seed growing sections in Mich-  
igan. We would respectfully solicit your  
growing contracts for 1941. All of our  
stocks are suitable for the most critical  
trade. Write for prices. Give us a trial  
—we may save you money.

**STARR SEED CO.**

CARSON CITY, MICHIGAN

# Important SPRAYING Information



Manufacturers of insecticides and fungicides have scientifically prepared many sprays and dusts that have proved effective in the control and eradication of the numerous insects and fungus diseases that attack growing crops. These products are sold by the manufacturers under various trade names. In order to make it easier for the users of this Guide to ascertain which insecticides or fungicides to use in combating or controlling a certain pest or disease, the following table is arranged, giving the names of products that have been found effective.

**The A. S. Boyle Co., Jersey City, N. J.**

"Ridz Garden Spray"  
"Ded Nicotine Spray"

**California Spray-Chemical Corp.,  
Richmond, Calif.,  
Elizabeth, N. J.**

"Ortho"  
"Extrax"  
"Greenol"  
"Nursery Volck"  
"Garden Volck"  
"Triox"

**Hammond Paint & Chemical Co., Beacon, N. Y.**

"B-B Dust"  
"Copper Solution"  
"Formacide"  
"Grape & Rose Dust"  
"Liquid Slug Shot"  
"Naptoside"  
"Pyrethrum Powder"  
"Slug Shot Dust"  
"Sodium Oleate"  
"Stabilized Rotenone Dust"  
"Thrip Juice Spray"  
"Triad"  
"Whale Oil Soap"

**Dow Chemical Co., Midland, Mich.**

The Dow Line

**Kay-Fries Chemicals, Inc.,  
New York, N. Y.**  
"Nicotrol"

"Penetrol" — (spreader for  
arsenicals, Bordeaux and  
ground Derris)

**The McCormick Sales Co.,  
Baltimore, Md.**

"Red Arrow Garden Spray"  
"Special Red Arrow Garden  
Spray"  
"Black Arrow No. 5000"  
"McCormick Rotenone  
Dust"  
"Rotenone Greenhouse  
Spray"  
"Bee Brand Derris Powder"  
"Bee Brand Flea Powder"  
"Bee Brand Insecticidal  
Shampoo"  
"Bee Brand Disinfectant"  
"Bee Brand Household In-  
sect Spray"  
"Bee Brand Insect Powder"  
"Bee Brand Canary Lice  
Powder"

**Mechling Bros. Chemicals,  
Div. General Chemical  
Co., Philadelphia, Pa.**

"Filmfast"  
"Hydroxide"  
"Japtox"  
"Mechling's Scale Oil"  
"Mechling's Arsenate of  
Lead"  
"Mechling's Arsenate Cal-  
cium"  
"Mechling's Bordeaux Mix-  
ture"

"Mechling's Dritomic Sul-  
phur"

"Mechling's Lime Sulfur So-  
lution"

"Mechling's Paris Green"

"Nicotine Sulphate"

"Pyrote"

**One-Spot Co., Elkridge, Md.**

"One-Spot"

**B. G. Pratt Company, New  
York, N. Y.**

"D-X"

"Scalecide"

"Sulfocide"

**Protex Industries, Inc.,  
New York, N. Y.**

"Protex Colloidalized  
Sulphur"

"Protex Colloidalized  
Arsenate of Lead"

"Protex Colloidalized  
Red Copper Oxide"

"Protex Dormant"

"Protex Rotenone"

"Protex Colloidalized  
Rotenone"

**Tobacco By-Products &  
Chemical Corp.,  
Louisville, Ky.**

"BlackLeaf 40"

"Nico-Fume Liquid"

	Disease or Insect	What to Use
Apple and Pear	Codling Moth	Black Leaf 40; D-X combined with arsenate of lead; Mechling's Arsenate of Lead; Slug Shot Dust; Dow; Protex Colloidalized Arsenate of Lead.
	San Jose Scale	Mechling's Scale Oil; Nicotrol; Scalecide; Dow; Protex Dormant.
	Scab	Mechling's Lime Sulfur Solution; Mechling's Dritomic Wetttable Sulfur; Dow; Protex Colloidalized Sulphur.
	Wooly Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nicotrol; Pyrote; Penetrol; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Rotenone and Sulphur.
Asparagus	Asparagus Beetle	D-X; Liquid Slug Shot; One-Spot; Mechling's Rotenone 400; Pyrote; Slug Shot Dust; Red Arrow Garden Spray; Stabilized Rotenone Dust; Dow; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone; McCormick Rotenone Dust. Calif. Spray Products.
	Rust	Copper Solution; Dow; Protex Colloidalized Red Copper Oxide.
Aster	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nicotrol; Red Arrow Garden Spray; McCormick Rotenone Dust; Nicotrol; O.K. Plant Spray; One-Spot; Pyrolol; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone.
	Aster Beetle	D-X; Liquid Slug Shot; Mechling's Arsenate of Lead; Mechling's Nicotine Sulfate; One Spot; Red Arrow Garden Spray; Pyrote; Slug Shot Dust; Stabilized Rotenone Dust; Dow; Protex Colloidalized Sulphur and Rotenone; McCormick Rotenone Dust.
	Rust Leafspot	Dritomic Wetttable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur.
Beans	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Nicotrol; One-Spot; Penetrol; Pyrote; Red Arrow Garden Spray; Sulrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone. Calif. Spray Products.
	Mexican Bean Beetle	B-B Dust; D-X; Liquid Slug Shot; One-Spot; Pyrote; Slug Shot; Sulrote; Dow; Ridz Garden Spray; Protex Colloidalized Sulphur and Rotenone; Red Arrow Garden Spray; McCormick Rotenone Dust. Calif. Spray Products.
	Anthraco nose, Powdery Mildew	Sulrote; Mechling's Bordeaux Mixture; Mechling's No. 20 Blight Dust; Sulfocide; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.

	Disease or Insect	What to Use
Beets	Leaf Spot	Sulrote; Dritomic Wetttable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur.
	Beet Leaf Hopper	D-X; Liquid Slug Shot; Sulrote; Pyrote; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone; McCormick Rotenone Dust; Black Arrow No. 5000. Calif. Spray Products.
Cabbage, Cauliflower, Brussels Sprouts, Turnip	Cabbage Worm	D-X; One-Spot; Penetrol; Pyrote; Slug Shot Dust; Mechling's Arsenate Calcium; Mechling's Rotenone 400; Stabilized Rotenone Dust; Sulrote; Dow; Ridz Garden Spray; Protex Colloidalized Sulphur and Colloidalized Rotenone; McCormick Rotenone Dust; Black Arrow No. 5000; Red Arrow Garden Spray. Calif. Spray Products.
Carrot Parsnip	Web Worm	Mechling's Arsenate of Lead; Dow; Protex Colloidalized Arsenate of Lead. Calif. Spray Products.
Carnation	Thrips	Black Leaf 40; D-X; Liquid Slug Shot; Nico-Fume Liquid; Nicotrol; Penetrol; Mechling's Nicotine Sulphate; Red Arrow Garden Spray; Black Arrow No. 5000; Pyrote; Sulrote; Thrip Juice Spray; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone.
	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Red Arrow Garden Spray; One-Spot; Pyrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur and Rotenone; Protex Rotenone.
	Caterpillars	D-X and Arsenate of Lead; One-Spot; Mechling's Arsenate of Lead; Pyrote; Dow; Ridz Garden Spray; Protex Colloidalized Arsenate of Lead; Red Arrow Garden Spray.
Celery	Blight	Copper Solution; Grape & Rose Dust; Hydroxide; Mechling's Bordeaux Mixture; Triad; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Tarnished Plant Bug	D-X; Mechling's Nicotine Sulfate; Pyrote; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; Red Arrow Garden Spray. Calif. Spray Products.
Cherry	Rot	Dritomic Wetttable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur.
	Curculio	D-X and Arsenate of Lead; Mechling's Arsenate of Lead; Penetrol; Dow; Protex Colloidalized Arsenate of Lead. Calif. Spray Products.
Chrysanthemum	Aphis	Black Leaf 40; D-X; Killogen; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Red Arrow Garden Spray.
	Red Spider	D-X; One-Spot; Pyrote; Dow; Ridz Garden Spray; Protex Colloidalized Rotenone; Protex Colloidalized Sulphur & Rotenone; Rotenone Greenhouse Spray.
	Leaf Hopper	D-X; Mechling's Nicotine Sulfate; One-Spot; Pyrote; Dow; Ridz Garden Spray; Ded Nicotine Spray; McCormick Rotenone Dust.
	Thrips	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; McCormick Rotenone Dust; Nicotrol; Penetrol; Pyrote; Thrip Juice Spray; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Colloidalized Sulphur; Protex Colloidalized Sulphur & Rotenone.
	Wilt Mildew, Leaf Spot	Mechling's Dritomic Wetttable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur; Protex Colloidalized Red Copper Oxide.
Corn—Sweet	Ear Worm	D-X; Mechling's Arsenate of Lead; Slug Shot Dust; Dow; Protex Colloidalized Arsenate of Lead; Red Arrow Garden Spray; McCormick Rotenone Dust. Calif. Spray Products.
Cucumber	Striped Beetle	D-X; Liquid Slug Shot; Mechling's Arsenate Calcium; One-Spot; Pyrote; Slug Shot Dust; Stabilized Rotenone Dust; Sulrote; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; McCormick Rotenone Dust; Red Arrow Garden Spray. Calif. Spray Products.
	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Nicotrol; One-Spot; Penetrol; Pyrote; McCormick Rotenone Dust; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	Anthraxnose, Dewy Mildew, Melon Rust	Mechling's Bordeaux Mixture; Sulfocide; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
Currant	San Jose Scale	Mechling's Lime Sulfur Solution; Penetrol; Scalecide; Dow; Dormant Protex.
	Worm	Black Leaf 40; D-X; Mechling's Rotenone 400; Slug Shot Dust; Dow; Protex Colloidalized Arsenate of Lead; Protex Rotenone.
Dahlia	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Red Arrow Garden Spray.
	Beetles	D-X; Mechling's Arsenate of Lead; Mechling's Rotenone 400; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	Tarnished Plant Bug	D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Pyrote; Slug Shot Dust; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	Red Spider	D-X; Pyrote; Dow; Ridz Garden Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; McCormick Rotenone Dust; Rotenone Greenhouse Spray.
	Leaf Hopper	Mechling's Nicotine Sulfate; Pyrote; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	Thrips	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nicotrol; Penetrol; Pyrote; Thrip Juice Spray; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	Mildew	Dritomic Wetttable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur; Protex Colloidalized Red Copper Oxide.
Ferns	Mealy Bug	D-X; Liquid Slug Shot; Nicotrol; One-Spot; Pyrote; Dow; Ridz Garden Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Red Arrow Garden Spray.
	White Fly	D-X; Pyrote; Thrip Juice Spray; Dow; Ridz Garden Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Protex Colloidalized Sulphur; Red Arrow Garden Spray; Black Arrow No. 5000.
	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Red Arrow Garden Spray; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone.
Gooseberry	Mildew	Copper Solution; Dritomic Wetttable Sulfur; Grape & Rose Dust; Sulfocide; Triad; Dow; Protex Colloidalized Sulphur.
	Worm	D-X and Arsenate of Lead; Slug Shot Dust; Mechling's Rotenone 400; Dow; Protex Rotenone; Protex Colloidalized Arsenate of Lead.
Lettuce	Aphids	D-X; Liquid Slug Shot; Nico-Fume Liquid; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; McCormick Rotenone Dust; Triad; Dow; Ridz Garden Spray; Ded Nicotine Spray; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
	Mildew	Copper Solution; Grape & Rose Dust; Hydroxide; Liquid Slug Shot; Triad; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Gray Mould	Hydroxide; Dow; Protex Colloidalized Red Copper Oxide; Protex Colloidalized Sulphur.



Don't Overlook  
This Profit  
Item for 1942

# HOW TO GROW PRIZE-WINNING ROSES

This Kit Is the Answer To Your  
Customers' Garden Pest Problems  
...A Rose Spray Kit That Has Done  
A Magnificent Job At Low Cost!

Here is what you can offer your customer:

- (1) A complete, highly efficient, combination spray that controls many insects and fungous diseases on Roses and other garden plants . . . (2) Only two units in the kit—simple, easy, safe to use . . . (3) The customer gets more spray for less money—12 gallons of diluted combination spray for \$1.00 . . . (4) It is attractively packaged with simple directions in every package.

Make This Item  
A Leader in 1942

**ORTHO**  
REG. U. S. PAT. OFF.

## ROSE SPRAY KIT

MAKES 12 GALLONS COMBINATION ROSE SPRAY  
FOR USE AGAINST MANY ROSE INSECTS AND DISEASES

## This NEW, MODERN Line Offers New PROFITS For Seed Dealers

... offers simplified, economical  
control of garden pests that  
your customers want

... offers easy, profitable sales  
that take the woe out of  
your insecticide business

Don't Overlook These Products  
For 1942 Profits

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GREENOL Liquid Fungicide

Nursery VOLCK Summer Oil  
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Spray

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TRIOX Weed Killer

Write for full information about  
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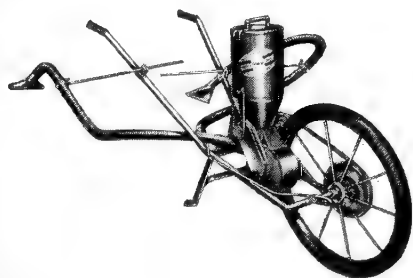
CALIFORNIA SPRAY-CHEMICAL CORP.

"The ORTHO Company"

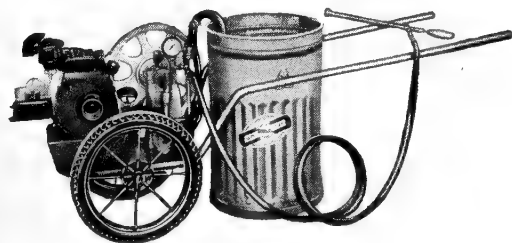
Richmond, Calif.

Elizabeth, N. J.

## Dobbins New Improved Wheelbarrow Duster



**Dobbins  
Power Wheelbarrow  
Sprayers**



No. 3193R

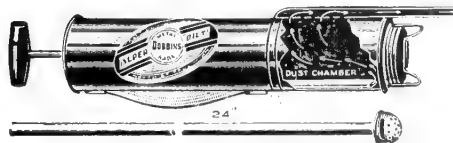
Power Wheelbarrow Sprayer. Delivers 1½ gallons per minute at 200 pounds pressure. Double wheel construction for utmost stability. Gas engine or electric powered. Pneumatic tires or steel wheels. Available with boom for row crop spraying.

The most efficient, convenient and practical duster of this type ever developed. A one man traction type outfit for all row crops such as potatoes, berries, tobacco, cotton, beans, cabbage, etc.

Large 24 in. pneumatic tired wheel. Easily handled on any soil. Lever control to throw duster in and out of gear. Nozzles adjustable to rows in any width up to 72 in. apart and to any height from ground to 36 in.

Machine cut gears run in a dustproof case. The powerful gear driven fan develops a fine enveloping dust cloud to the plants.

**The Finest  
Hand Duster Made**



No. 132 Duster

Handles all insecticides for dusting all garden and field crops. A new principle assures a uniform discharge down to the last particle of dust in the dust chamber. Self-lubricating plunger and patented two-way cap for dusting top and under side of leaves.

We Manufacture a Complete Line of

**Sprayers—Dusters—Planters**

Feature the DOBBINS SUPERBILT LINE in your catalog. Electrotypes and copy furnished on request. Write today.

**DOBBINS MANUFACTURING CO.**

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Elkhart, Ind.

Factories at  
North St. Paul, Minn.—Elkhart, Ind.



**Sprayers with  
Electric-Welded Tanks**

Dobbins line of compressed air sprayers contains many patented features such as self-lubricating pressure seal valve plungers, unit pump construction, bighead or FUN-L-FILL tanks, trigger quick spray lock, positive chemical proof air valves. The No. 21 sprayer illustrated above has a 3½ gallon galvanized or copper tank electrically welded at all seams. Pressure safe—leakproof.

	Disease or Insect	What to Use
Nasturtium	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Red Arrow Garden Spray; McCormick Rotenone Dust; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone.
Onion	Thrips	Black Leaf 40; D-X; Mechling's Nicotine Sulfate; Naptoside; Nico-Fume Liquid; Nicotrol; Penetrol; Pyrote; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone; Bee Brand Derris Powder. Calif. Spray Products.
Peas	Blight	Copper Solution; Grape & Rose Dust; Mechling's Bordeaux Mixture; Triad; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Aphids	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Rotenone 400; Nico-Fume Liquid; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Rotenone; Bee Brand Derris Powder. Calif. Spray Products.
Plum	Rot	Dritomic Wettable Sulfur; Sulfocide; Dow; Protex Colloidalized Sulphur.
	Curculio	D-X and Arsenate of Lead; Mechling's Arsenate of Lead; Penetrol; Dow; Protex Colloidalized Arsenate of Lead.
Potato	Early Blight	Copper Solution; Grape & Rose Dust; Hydroxide; Triad; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Late Blight	Copper Solution; Grape & Rose Dust; Hydroxide; Dow; Protex Colloidalized Red Copper Oxide.
	Potato Bugs	Hydroxide; Insectogen; Mechling's Paris Green; One-Spot; Penetrol; Slug Shot Dust; Dow; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
Radish	Cabbage Worm	D-X; Liquid Slug Shot; Mechling's Arsenate Calcium; One-Spot; Penetrol; Pyrote; Slug Shot Dust; Dow; Protex Colloidalized Arsenate of Lead; McCormick Rotenone Dust; Black Arrow No. 5000; Red Arrow Garden Spray. Calif. Spray Products.
	Harlequin Bug	D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Dow; Protex Colloidalized Sulphur & Rotenone; McCormick Rotenone Dust; Black Arrow No. 5000; Red Arrow Garden Spray.
	Aphids	Black Leaf 40; D-X; Liquid Slug Shot; Nico-Fume Liquid; Nicotrol; One-Spot; Penetrol; McCormick Rotenone Dust; Black Arrow No. 5000; Red Arrow Garden Spray; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
	Red Spider	Dritomic Wettable Sulfur; D-X; Liquid Slug Shot; One-Spot; Pyrote; Thrip Juice Spray; Red Arrow Garden Spray; Bee Brand Derris Powder; Rotenone Greenhouse Spray; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
Roses	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nico-Fume Liquid; Red Arrow Garden Spray; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone.
	Brown Canker Black Spot Mildew	Mechling's Bordeaux Mixture; Scalecide; Sulfocide; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Leaf Roller	Liquid Slug Shot; Mechling's Rotenone 400; Thrip Juice Spray; Dow; Protex Colloidalized Sulphur & Rotenone; Special Red Arrow. Calif. Spray Products.
	Beetles	D-X and Arsenate of Lead; Liquid Slug Shot; Mechling's Arsenate Lead; One-Spot; Red Arrow Garden Spray; Pyrote; Slug Shot Dust; Stabilized Rotenone Dust; Dow; Protex Colloidalized Arsenate of Lead; Protex Colloidalized Sulphur & Rotenone.
	Slugs	D-X; Pyrote; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; Red Arrow Garden Spray; Black Arrow No. 5000. Calif. Spray Products.
Spinach	Flea Beetle	D-X; Mechling's Rotenone 400; One-Spot; Slug Shot; Stabilized Rotenone Dust; Dow; Protex Rotenone. Calif. Spray Products.
	Aphids	D-X; Liquid Slug Shot; Nico-Fume Liquid; Nicotrol; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone.
	Leaf Miner	Liquid Slug Shot; Mechling's Nicotine Sulfate; Dow; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
Squash	Striped Cucumber Beetle	D-X; Liquid Slug Shot; Mechling's Rotenone 400; One-Spot; Slug Shot Dust; Stabilized Rotenone Dust; Red Arrow Garden Spray; McCormick Rotenone Dust; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; Protex Colloidalized Sulphur.
	Squash Bug	D-X; Liquid Slug Shot; One-Spot; Pyrote; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; Protex Colloidalized Sulphur; Red Arrow Garden Spray; McCormick Rotenone Dust. Calif. Spray Products.
	Squash Vine Borer	Black Leaf 40; Liquid Slug Shot; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; Protex Colloidalized Sulphur; McCormick Rotenone Dust. Calif. Spray Products.
Sweet Pea	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Nico-Fume Liquid; Nicotrol; Red Arrow Garden Spray; Bee Brand Derris Powder; McCormick Rotenone Dust; One-Spot; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Colloidalized Sulphur; Protex Colloidalized Sulphur and Rotenone. Calif. Spray Products.
	Mildew Blight	Mechling's Bordeaux Mixture; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
Tomato	Anthracnose	Mechling's Bordeaux Mixture; Thrip Juice; Dow; Protex Colloidalized Red Copper Oxide.
	Flea Beetle	Mechling's Bordeaux Mixture; Dow; Protex Colloidalized Red Copper Oxide; McCormick Rotenone Dust. Calif. Spray Products.
	Horn Worm	D-X and Arsenate of Lead; Mechling's Arsenate Lead; Dow; Protex Colloidalized Arsenate of Lead. Calif. Spray Products.
	Leaf Spot	Copper Solution; Mechling's Bordeaux Mixture; Sulfocide; Dow; Protex Colloidalized Red Copper Oxide. Calif. Spray Products.
	Tomato Worm	D-X and Arsenate of Lead; Liquid Slug Shot; Mechling's Arsenate Calcium; Slug Shot Dust; Red Arrow Garden Spray; McCormick Rotenone Dust; Sulroto; Dow; Protex Colloidalized Arsenate of Lead; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
Watermelon and Muskmelon	Aphis	Black Leaf 40; D-X; Liquid Slug Shot; Mechling's Nicotine Sulfate; Nicotrol; McCormick Rotenone Dust; Red Arrow Garden Spray; Penetrol; Pyrote; Thrip Juice Spray; Triad; Dow; Protex Rotenone; Protex Colloidalized Sulphur & Rotenone. Calif. Spray Products.
	Beetles	One-Spot; Pyrote; Slug Shot Dust; Stabilized Rotenone Dust; Dow; Protex Colloidalized Sulphur & Rotenone; Protex Rotenone; McCormick Rotenone Dust. Calif. Spray Products.
	Anthracnose	Liquid Slug Shot; Mechling's Bordeaux Mixture; Thrip Juice; Dow; Protex; Colloidalized Red Copper Oxide. Calif. Spray Products.



# SEEDSMEN! *Attention!*

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*"The spray that won't wash off!"  
The spray with a hundred uses*

The secret of Protex—"the spray that won't wash off"—lies in its using as a base, latex, the milk-like sap of the rubber tree (*Hevea Brasiliensis*). Through intensive research this substance

has been subjected to a special patented process and adapted to the needs of agriculture in general and in other variations in relation to horticulture, forestry and plant therapeutics.

### PROTEX

*Guards against winter-weather hazards*

- Prevents winter-drying, winter-kill.
- Regulates rate of moisture evaporation.
- Permits normal "breathing."
- Does away with unsightly mechanical wrappings.

### PROTEX

*Stimulates healthy, vigorous spring growth*

- Helps equalize extreme temperature changes.
- Deflects excessive heat and harmful radiation.
- Aids in warding off insect pests and fungus diseases.
- Supplants old-fashioned lime-sulfur sprays.

### PROTEX

*Protects against summer heat and light*

- Reflects harmful sunlight.
- Prevents sun-scorch and scald.
- Repels chewing, boring and sucking insects.
- Protects trunk wounds and abrasions.

### PROTEX

*The modern aid for successful transplanting*

- Used as spray or dip during and after transplanting.
- Acts as an effective and lasting anti-desiccant.
- Does away with the need of drastic pruning.
- Stimulates quick return to normal growth.

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*To ward off animal-injury*

- Repels mice, rabbits, small field animals, dogs, etc.
- Harmless to plants, inoffensive to humans.
- Eliminates need for tar-paper, wire mesh, etc.

### PROTEX

*The spray with a hundred uses*

- For pruning, grafting, tree surgery, wound-dressings, reforestation, fruit preservation, bulb and seed storage and a myriad uses adaptable to your individual needs.

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## WHITE'S QUALITY SEEDS

For the Discriminating

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### Tomato

### Pepper

N. J. State Certified

High Quality

*"The Seeds with a background"*

## Joseph White Co.

Bridgeton

New Jersey



## "KNEEZIES" FOR KNEELERS

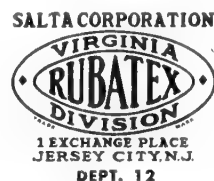
The Only Soft, Waterproof "Snap-on" Knee Pad

More and more, garden owners are demanding comfort in their work. And comfort means protection while working on their knees.

"KNEEZIES" fill this need perfectly. Made of a new, bubble-filled rubber, they are soft as a pillow. Strong, light, flexible, washable and waterproof. Dealers find "KNEEZIES" one of the easiest-to-sell garden gadgets ever introduced. Each pair wrapped in cellophane. Retail at \$1.00 pair. Attractive Display Carton holds ½-doz. pairs.

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California Spray Chemical Corp.  
Elizabeth, N. J.  
Carco Spray Co., Inc.  
Tacoma, Wash.  
Du Pont de Nemours & Co., Inc., E. I.  
Grasselli Chemicals Dept.  
Wilmington, Del.  
General Chemical Co.  
New York, N. Y.  
Good, Inc., James  
Philadelphia, Pa.  
Goulard & Olen, Inc.  
New York, N. Y.  
Lee Co., Geo. H.  
Omaha, Nebr.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
Nicotine Mfg. Co.  
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Tobacco By-Products & Chem. Corp.  
Louisville, Ky.

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St. Louis, Mo.

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Mt. Airy, Cincinnati, Ohio  
Morrison, J. Lester (Baby Turtles, alligators, etc.)  
Florence, Ala.  
National Pet Shops  
St. Louis, Mo.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Tamms Silica Co. (Pebbles)  
Chicago, Ill.  
Tricker, Inc., Wm.  
Independence, Ohio  
Universal Crushed Shell Co.  
Muscatine, Iowa

## AUGERS—TREE AND EARTH

American Florist Supply Co.  
Chicago, Ill.  
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Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio

## BAIT—INSECT—WEEVIL

Agricultural Laboratories, Inc.  
Columbus, Ohio

## BAMBOO STAKES

American Florist Supply Co.  
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Holmes Seed Co., The  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.  
New York, N. Y.  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Swift & Co.  
Chicago, Ill.

## BANDS—LEG

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.

Garden Industries  
St. Louis, Mo.  
Illinois Supply Co.  
Aurora, Ill.  
Poultry Aid Products Co. (Delousing)  
Grand Rapids, Mich.

## BANDS—PLANT

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Bird & Son, Inc.  
East Walpole, Mass.  
Germain Seed & Plant Co.  
Los Angeles, Calif.

## BARROWS—GARDEN

American Florist Supply Co.  
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Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schell Inc., Walter S.  
Harrisburg, Pa.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.

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McCullough Seed Co., The J. Chas.  
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Planters Mfg. Co., Inc. (Field Tomato)  
Portsmouth, Va.  
Worcester Wire Novelty Co., Inc.  
Baltimore, Md.

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Ionia Pottery Co.  
Ionia, Mich.  
Metal Products Co.  
Fredericksburg, Va.  
Michigan Wire Goods Co.  
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Western Stoneware Co.  
Monmouth, Ill.

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Root Co., The A. I.  
Medina, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.

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Falconer, N. Y.  
Hamilton Seed & Coal Co.  
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Kelley & Co., Walter T.  
Paducah, Ky.  
Leahy Mfg. Co.  
Higginsville, Mo.  
Lewis Co., G. B.  
Watertown, Wis.  
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Medina, Ohio  
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Harrisburg, Pa.

## BEEES

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Medina, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.

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Van Nuys, Calif.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Spratt's Patent, Ltd.  
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Van Nuys, Calif.  
Grand River Pet Supply Co.  
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Hendryx Co., Andrew B.  
New Haven, Conn.  
National Pet Shops  
St. Louis, Mo.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Schoemann & Mayer, Inc.  
New York, N. Y.

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Duryea Seed Co., Inc.  
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Garden Products Co.  
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Grand River Pet Supply Co.  
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Hungarian Farmers Co-op. Ass'n  
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Justrite Co., The  
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Kellogg Seed Co.  
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Mangelsdorf & Bro., Inc., Ed. F.  
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McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
National Pet Shops  
St. Louis, Mo.  
Nature Friend, Inc., The  
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San Francisco, Calif.  
Petpak Products Co.  
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Philadelphia Bird Food Co.  
Philadelphia, Pa.  
Philadelphia Seed Co.  
Philadelphia, Pa.  
Prunty Seed & Grain Co.  
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Scarlett & Co., Wm. G.  
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Schell, Inc., Walter S.  
Harrisburg, Pa.  
Spratt's Patent, Ltd.  
Newark, N. J.  
Von Damm, F. H. (Bird Food)  
Brooklyn, N. Y.

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Duryea Seed Co., Inc.  
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Loewith, Inc., Julius  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nature Friend, Inc., The  
New York, N. Y.  
Philadelphia Seed Co.  
Philadelphia, Pa.  
Scarlett & Co., William G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Seaboard Seed Co.  
Philadelphia, Pa.

#### BIRDS

Bird Mart  
Fort Lauderdale, Fla.  
Flower's Tropical Bird Co.  
Van Nuys, Calif.  
Geisler Bird Co., Max  
New York, N. Y.  
National Pet Shops  
St. Louis, Mo.  
Nature Friend, Inc., The  
New York, N. Y.  
Robison, Ansel W.  
San Francisco, Calif.  
Schell, Inc., Walter S.  
Harrisburg, Pa.

#### BIRD SEED CARTONS

Disbrow Mfg. Co., Inc.  
Newark, N. J.  
Schmidt Lithograph Co.  
San Francisco, Calif.

#### BIRD SUPPLIES

Battle Creek Dog Food Co.  
Battle Creek, Mich.  
Chappel Bros., Inc.  
Rockford, Ill.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Holmes Seed Co.  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nature Friend, Inc., The  
New York, N. Y.  
Scarlett & Co., William G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Spratt's Patent, Ltd.  
Newark, N. J.

#### BLEACHERS—CELERY

Ball-Biddle Co.  
Riverton, N. J.  
Disbrow Mfg. Co., Inc.  
Newark, N. J.  
Miller, Tompkins & Co.  
East Rutherford, N. J.  
Schell, Inc., Walter S.  
Harrisburg, Pa.

#### BOOKS—FARMING AND GARDENING

American Florist Supply Co.  
Chicago, Ill.  
DeLaMare Co., Inc., A. T.  
New York, N. Y.  
Doubleday, Doran & Co., Inc.  
New York, N. Y.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Lippincott Co., J. B.  
Philadelphia, Pa.  
Little, Brown & Co.  
Boston, Mass.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Macmillan Co., The  
New York, N. Y.

Page Seed Co., The  
Greene, N. Y.  
Orange-Judd Pub. Co.  
New York, N. Y.  
Union Fork & Hoe Co., The  
Columbus, Ohio

#### BOOKS—ON TREES

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Doubleday, Doran & Co., Inc.  
New York, N. Y.  
Herbst Bros.  
New York, N. Y.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Macmillan Co., The  
New York, N. Y.

#### BOWLS—BULB

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
Block, Inc., J. & I.  
New York, N. Y.  
Brush Pottery Co.  
Zanesville, Ohio  
Created Ideas, Inc.  
Cincinnati, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Metal Products Co.  
Fredericksburg, Va.  
Morton Pottery Co.  
Morton, Ill.  
Pittsburg Pottery Co.  
Pittsburg, Kansas  
Western Stoneware Co.  
Monmouth, Ill.  
Zane Pottery Co.  
So. Zanesville, Ohio

#### BOXES—FLOWER

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
Bird & Son, Inc.  
East Walpole, Mass.  
Homecraft Specialty Mfg. Co.  
Mattoon, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Woodcraft Co.  
Dalton, N. Y.  
Yoho & Hooker (Cypress)  
Youngstown, Ohio

#### BOXES—PARCEL POST

Campbell Box & Tag Co.  
South Bend, Ind.  
Container Corp. of America  
Chicago, Ill.  
Disbrow Mfg. Co., Inc.  
Newark, N. J.  
Hinde & Dauch Paper Co.  
Sandusky, Ohio

#### BOXES—TRANSPLANTING

Ball-Biddle Co.  
Riverton, N. J.  
Bird & Son, Inc.  
East Walpole, Mass.

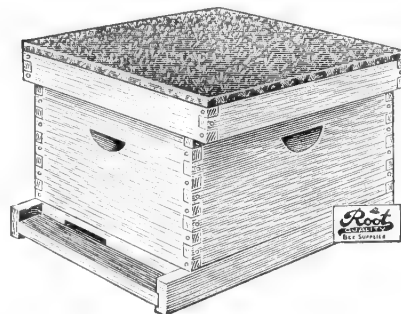
#### BRAIDS—TYING

Fricke Co., J. E.  
Philadelphia, Pa.

#### BROODERS

Brower Mfg. Co.  
Quincy, Ill.

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Chicago, Ill.

Makomb Steel Products Co.  
Macomb, Ill.

National Ideal Co.  
Toledo, Ohio

Oakes Mfg. Co.  
Tipton, Ind.

Poorman, John G. (Feather)  
Tinley Park, Ill.

Royal Mfg. Co.  
Bowling Green, Ohio

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Heller & Co.  
Montpelier, Ohio

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Aeroil Burner Co., Inc.  
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American Florist Supply Co.  
Chicago, Ill.

Hauck Mfg. Co.  
Brooklyn, N. Y.

### CANS—WATERING

American Florist Supply Co.  
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Leonard & Son, A. M.  
Piqua, Ohio

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

National Enameling & Stamping Co.  
Milwaukee, Wis.

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Schell, Inc., Walter S.  
Harrisburg, Pa.

### CARTS—GARDEN OR LAWN

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Leonard & Son, A. M.  
Piqua, Ohio

Masters Planter Co.  
Benton Harbor, Mich.

Schell, Inc., Walter S.  
Harrisburg, Pa.

Thompson & Sons, O. E.  
Ypsilanti, Mich.

### CAT FOOD AND SUPPLIES

Battle Creek Dog Food Co.  
Battle Creek, Mich.

Burnett's, Inc.  
Newark, N. J.

Chappel Bros., Inc.  
Rockford, Ill.

Gabriel's Laboratories  
Tell City, Ind.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Perfection Foods Co.  
Battle Creek, Mich.

Reynolds Mfg. Co. (Catnip Mice)  
Fredericktown, Ohio

Schell, Inc., Walter S.  
Harrisburg, Pa.

Spratt's Patent, Ltd.  
Newark, N. J.

Zenith Novelty Co.  
New York, N. Y.

### CHARCOAL

American Florist Supply Co.  
Chicago, Ill.

Cliffs Dow Chem. Co.  
Marquette, Mich.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Ouren Seed Co.  
Council Bluffs, Iowa

Scarlett & Co., Wm. G.  
Baltimore, Md.

Schell, Inc., Walter S.  
Harrisburg, Pa.

### CHICK BOXES

Anderson Box Co.  
Indianapolis, Ind.

### CHICKS

Atz's Mammoth Hatcheries  
Huntingburg, Ind.

Colonial Poultry Farms  
Pleasant Hill, Mo.

Graf Hatcheries, E. J.  
Evansville, Ind.

Hayes Hatcheries, S. W.  
Centralia, Ill.

Illinois Hatchery  
Metropolis, Ill.

Martin's Ramsey Hatchery  
Ramsey, Ind.

Mildred Bros. Hatcheries  
Warrenton, Mo.

Miller Hatcheries, Inc.  
Lancaster, Mo.

Miller Hatchery  
Bloomington, Ill.

Moweaqua Seed Co. Hatchery  
Moweaqua, Ill.

McFeeter's Hatchery  
Defiance, Ohio

Ridgway Duck Hatchery, The  
(Also Ducklings, Goslings and Poults)

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Russell Hatchery

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Sunshine Hatcheries

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Wayne Duck Farm

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Chesmore Seed Co.  
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Conwell, Inc., H. Ernest  
Milton, Del.

Holmes Seed Co.  
Canton, Ohio

Jones, The Holly Wreath Man  
Milton, Del.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Michael-Leonard Seed Co.  
Sioux City, Iowa

Neilson, Knud  
Evergreen, Ala.

Platten's Christmas Trees, Inc.  
Green Bay, Wis.

Quality Seed & Grain Co. (Mistletoe)  
Chickasha, Okla.

Schell, Inc., Walter S.  
Harrisburg, Pa.

South West Desert Nurseries  
(Mistletoe)

Las Cruces, N. Mex.

### CHRISTMAS TREES

Hamilton Seed & Coal Co.  
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Holmes Seed Co., The  
Canton, Ohio

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Michael-Leonard Seed Co.  
Sioux City, Iowa

Schell, Inc., Walter S.  
Harrisburg, Pa.

### COD LIVER OIL

Appel Commission Co., C. H.  
St. Louis, Mo.

Atkins & Durbrow, Inc.  
New York, N. Y.  
Perfection Foods Co.  
Battle Creek, Mich.  
Premier Peat Moss Corp.  
New York, N. Y.  
Squibb & Sons, E. R.  
New York, N. Y.  
Wood & Sons, T. W.  
Richmond, Va.

#### COLCHICINE ALKALOID

Mallinckrodt Chemical Works  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
Vitamin Institute of Calif.  
Hollywood, Calif.

#### COPPER OXIDE—RED

American Florist Supply Co.  
Chicago, Ill.  
Ansbacher-Siegle Corp.  
Brooklyn, N. Y.  
Holmes Seed Co.  
Canton, Ohio  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
Merck & Co., Inc.  
Rahway, N. J.  
Protex Industries, Inc.  
New York, N. Y.  
Rohm & Haas Co.  
Philadelphia, Pa.  
Shur-Gro. Co.  
Pittsburgh, Pa.  
Woodruff & Sons, Inc., F. H.  
Milford, Conn.

#### COUPLING—HOSE

American Florist Supply Co.  
Chicago, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### CRAB GRASS KILLER

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St. Louis, Mo.

#### CREOSOTE OIL

C-A Wood Preserver Co.  
St. Louis, Mo.

#### CULTIVATORS—GARDEN

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Case Co., J. I.  
Racine, Wis.

Gardex, Inc.  
Michigan City, Ind.  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
Gravelly Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Norcross & Sons, C. S.  
Bushnell, Ill.  
Pioneer Mfg. Co.  
West Allis, Milwaukee, Wis.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Union Fork & Hoe Co., The  
Columbus, Ohio  
Utilitor Co., The  
Miamisburg, Ohio

#### CUTTERS—SOD

American Florist Supply Co.  
Chicago, Ill.  
Lane & Son, M. R.  
Ardmore, Pa.  
Leonard & Son, A. M.  
Piqua, Ohio  
Union Fork & Hoe Co., The  
Columbus, Ohio

#### CUTTLE BONE

Burnett's, Inc.  
Newark, N. J.  
Albert Dickinson Seed Co., The  
Chicago, Ill.  
Hinton & Co.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Petpak Products Co.  
Milwaukee, Wis.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Spratt's Patent, Ltd.  
Newark, N. J.

#### CYLINDERS

Myers & Bro. Co., The F. E.  
Ashland, Ohio

#### DAIRY SUPPLIES

Anker-Holth Mfg. Co.  
Port Huron, Mich.

Cherry-Burrell Corp.  
New York, N. Y.  
Creamery Package Mfg. Co.  
New York, N. Y.  
Duggar Mfg. Co., L. G.  
Hope Hull, Ala.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Pilling & Son Co., G. P.  
Philadelphia, Pa.

#### DIBBLES

American Florist Supply Co.  
Chicago, Ill.  
Gardex, Inc.  
Michigan City, Ind.  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Union Fork & Hoe Co.  
Columbus, Ohio

#### DIGGERS—DANDELION

Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Meilink & Co.  
Detroit, Mich.  
Union Fork & Hoe Co.  
Columbus, Ohio

#### DISINFECTANTS—ANIMAL

Aeroil Burner Co. (Torches)  
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American Florist Supply Co.  
Chicago, Ill.  
Bonide Chem. Co., Inc.  
Utica, N. Y.  
Boyle Co., The A. S.  
Jersey City, N. J.  
Brower Mfg. Co.  
Quincy, Ill.  
Carbola Chemical Co.  
Natural Bridge, N. Y.  
Carus Chemical Co.  
La Salle, Ill.  
C-A Wood Preserver Co.  
St. Louis, Mo.  
Chic-Tone Co.  
Bath, Pa.  
Clifton Chem. Co., Inc.  
New York, N. Y.  
Conkey Co., G. E.  
Cleveland, Ohio  
Dow Chemical Co.  
Midland, Mich.  
Lee Co., Geo. H.  
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St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
Nicotine Mfg. Co.  
St. Louis, Mo.  
Pratt Food Co.  
Philadelphia, Pa.  
Rohm & Haas Co.  
Philadelphia, Pa.  
Russell Co., I. D.  
Kansas City, Mo.  
Salsbury's Laboratories, Dr.  
Charles City, Iowa  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Tobacco By-Products & Chemical Corp.  
Louisville, Ky.

### DISINFECTANTS—SEED

American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Ansbacher-Siegle Corp.  
Brooklyn, N. Y.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
California Spray Chemical Co.  
Elizabeth, N. J.  
Carus Chemical Co.  
La Salle, Ill.  
Dickinson Seed Co., The Albert  
Chicago, Ill.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.  
Dow Chemical Co.  
Midland, Mich.  
Garden Products Co.  
St. Louis, Mo.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Innis, Speiden & Co.  
New York, N. Y.  
McCormick Sales Co., The  
Baltimore, Md.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio.  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
Rohm & Haas Co.  
Philadelphia, Pa.  
Scarlett & Co. Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Seaboard Seed Co.  
Philadelphia, Pa.  
Vitamin Institute of Calif.  
Hollywood, Calif.  
Wood Ridge Mfg. Co.  
Wood Ridge, N. J.

### DISTRIBUTOR—FERTILIZER

American Agricultural Chemical Co., The  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.

Dickinson Seed Co., The Albert  
Chicago, Ill.  
Hydroponic Chemical Co., Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Masters Planter Co.  
Benton Harbor, Mich.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Smith Agricultural Chemical Co., The  
Columbus, Ohio  
Swift & Co.  
Chicago, Ill.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.

### DOG FOOD

American Florist Supply Co.  
Chicago, Ill.  
Arcady Farms Milling Co.  
Chicago, Ill.  
Balorations, Inc. (Div. Tioga Mills, Inc.)  
Waverly, N. Y.  
Battle Creek Dog Food Co.  
Battle Creek, Mich.  
Chappel Bros., Inc.  
Rockford, Ill.  
Dickinson Co., The Albert  
Chicago, Ill.  
Glover Co., Inc., H. Clay  
New York, N. Y.  
Goulard & Olena, Inc.  
New York, N. Y.  
Holmes Seed Co.  
Canton, Ohio  
Justrite Co.  
Milwaukee, Wis.  
Lilly Co., The Chas. H.  
Seattle, Wash.  
McCormick Sales Co., The  
Baltimore, Md.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Meat Products Co.  
Cleveland, Ohio  
Nature Friend, Inc., The  
New York, N. Y.  
Old Trusty Dog Food Co.  
Needham Heights, Mass.  
Perfection Foods Co.  
Battle Creek, Mich.  
Philadelphia Seed Co.  
Philadelphia, Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Spratt's Patent, Ltd.  
Newark, N. J.

### DOG SUPPLIES

Battle Creek Dog Food Co.  
Battle Creek, Mich.  
Chappel Bros., Inc.  
Rockford, Ill.  
Grand River Pet Supply Co.  
Detroit, Mich.  
McCarty Mfg. Co.  
Park Ridge, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
National Pet Shops  
St. Louis, Mo.  
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Elkridge, Md.  
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Better Advertising  
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HORTICULTURAL PRINTING SPECIALISTS



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Chicago, Ill.  
Spratt's Patent, Ltd.  
Newark, N. J.  
Sudbury Soil Testing Laboratory  
Sudbury, Mass.

#### DRILLS—SEED

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
American Fork & Hoe Co.  
Cleveland, Ohio  
Case Co., J. I.  
Racine, Wis.  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### DUSTS

American Florist Supply Co.  
Chicago, Ill.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
California Spray Chemical Co.  
Elizabeth, N. J.  
Dow Chemical Co.  
Midland, Mich.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
McCormick Sales Co., The  
Baltimore, Md.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Rose Mfg. Co.  
Beacon, N. Y.  
Scarlett & Co., William G.  
Baltimore, Md.  
Tennessee Corp.  
New York, N. Y.  
Tobacco By-Products & Chem. Corp., Inc.  
Louisville, Ky.

#### DUSTERS

Acmeline Mfg. Co.  
Traverse City, Mich.  
Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Bean Mfg. Co., John  
Lansing, Mich.  
Brown Co., E. C.  
Rochester, N. Y.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Dobbins Mfg. Co.  
Elkhart, Ind.  
Feeny Manufacturing Co.  
Muncie, Ind.  
"Friend" Mfg. Co.  
Gasport, N. Y.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
Los Angeles Chemical Co.  
Los Angeles, Calif.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Messinger Mfg. Co.  
Tatamy, Pa.  
Oliver Mfg. Co.  
St. Louis, Mo.  
One-Spot Co.  
Elkridge, Md.  
Root Mfg. Co.  
Cleveland, Ohio  
Scarlett & Co., William G.  
Baltimore, Md.  
Shunk Mfg. Co.  
Bucyrus, Ohio  
Smith & Co., D. B.  
Utica, N. Y.  
Tennessee Corp.  
New York, N. Y.

#### EGG PRESERVATIVES

Dow Chemical Co.  
Midland, Mich.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.

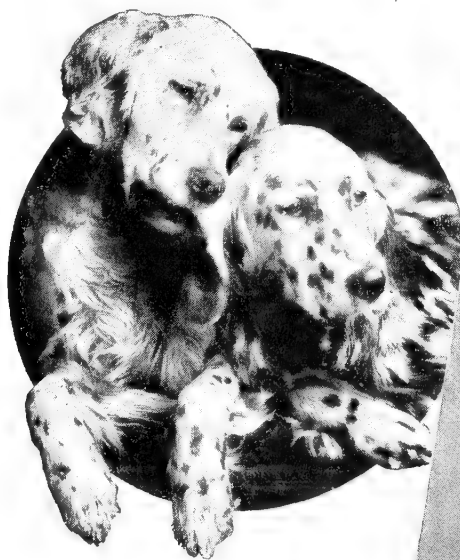
#### ELECTRIC HEDGE TRIMMERS

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
Detco Mfg. Co.  
Oaks, Montgomery Co., Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.

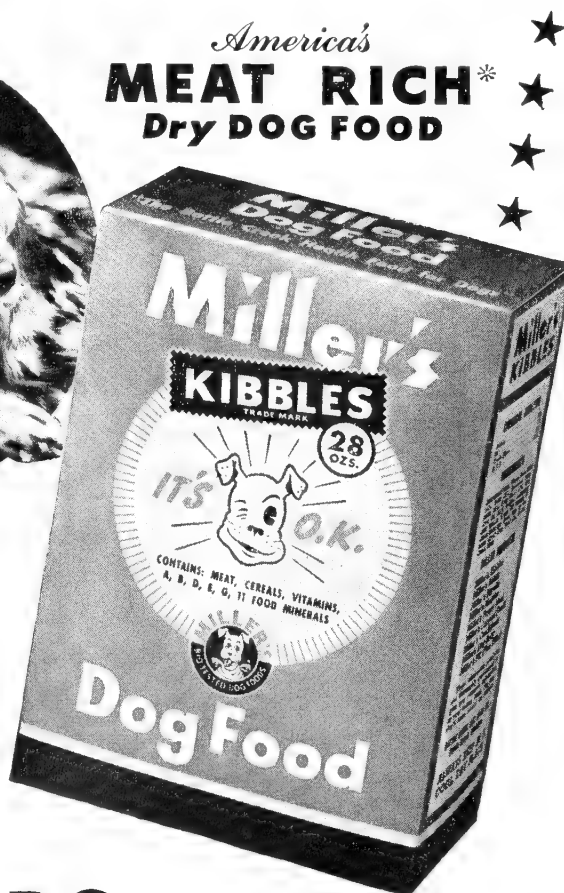
#### ERADICATORS—WORM

American Florist Supply Co.  
Chicago, Ill.  
Dow Chemical Co.  
Midland, Mich.

**CASH IN**  
*with*  
**MILLER'S**  
**THIS YEAR!**



The national advertising is clicking! Well-informed dog owners throughout the land are turning to this meat-rich flavor-rich dry food. Stimulate greater dog food sales in your store by stocking and displaying Miller's. We'll give you complete cooperation. Send for full details on quick-selling introductory offer.



**MILLER'S DOG FOODS**

**174 State Street**

**Battle Creek, Michigan**

★ *\*Thoroughly  
cooked meat and  
bone scraps.*

# ANTROL

## HOUSE & GARDEN PEST CONTROLS



**ANTROL ANT TRAPS**  
Fast-selling, big profit item that kills both sweet-eating and grease-eating ants quickly!



**ANTROL READY-FILLED SETS**  
Convenient - to-use sets consisting of four glass feeders filled with Antrol Syrup.

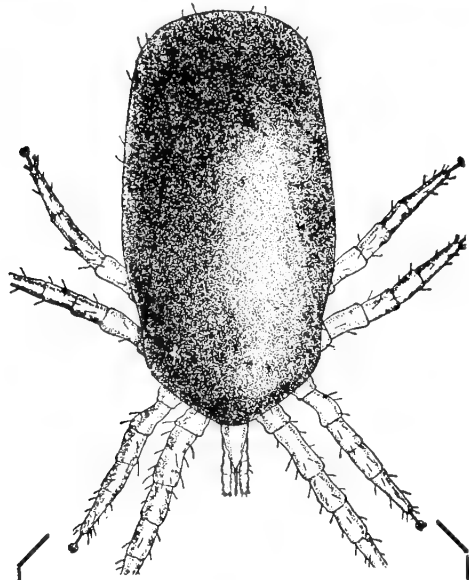


**SNAROL METALDEHYDE-ARSENICAL BAIT.** Ready-prepared bait meal that attracts and kills snails, slugs, cut-worms, sowbugs earwigs.

**Catalog them!  
you'll Profit!**

**THE A. S. BOYLE COMPANY**  
Distributors - Jersey City N. J.

### CHICKEN MITE



PROFIT by selling carbolineum like that recommended in Gov't. Bulletins. Our C-A wood preserver (CARBOLINEUM AMERICA) guaranteed by affidavit. **Lasts 1 to 3 years!** Can be diluted with kerosene, petroleum distillate or used crankcase oil, and still be effective. Write for sample and delivered prices or get it through your jobber.

**C-A WOOD PRESERVER CO.**  
6626 Delmar Blvd., St. Louis, Mo.

- Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Merck & Co., Inc.  
Rahway, N. J.  
Reade Mfg. Co.  
Jersey City, N. J.
- EROSION CONTROL**  
American Florist Supply Co.  
Chicago, Ill.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Protex Industries, Inc.  
New York, N. Y.
- EXTERMINATORS—ANT**  
Acme White Lead & Color Works  
Detroit, Mich.  
Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Cyanamid & Chemical Corp.  
New York, N. Y.  
Bonide Chem. Co., Inc.  
Utica, N. Y.  
Boyle Co., The A. S.  
Jersey City, N. J.  
Buckeye Chemical & Specialty Co.  
New York, N. Y.  
Goulard & Olena, Inc. (traps)  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Killant Chem. Co.  
Fort Worth, Texas  
Lethelin Products Co., Inc.  
Wood Ridge, N. J.  
Rotenone Products Co. (Traps)  
East Orange, N. J.  
Senoret Chemical Co.  
St. Louis, Mo.  
Soilicide Laboratories  
Upper Montclair, N. J.  
Tobacco By-Products & Chem. Corp.  
Louisville, Ky.
- EXTERMINATORS—FLY**  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Lyon Rural Electric Co.  
San Diego, Calif.  
Warner Electric Co.  
Chicago, Ill.
- EXTERMINATORS—MOLE AND  
GOPHER**  
American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
Bohlender Plant Chemicals, Inc.  
Tipp City, Ohio  
California Spray Chem. Corp.  
Elizabeth, N. J.  
Fort Dodge Chemical Co.  
Fort Dodge, Iowa  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
Rat Lunches Co.  
Carroll, Iowa  
Rose Mfg. Co.  
Beacon, N. Y.  
Smith Chemical Co.  
Ames, Iowa  
Soilicide Laboratories  
Upper Montclair, N. J.
- EXTERMINATORS—PEST**  
Aeroil Burner Co., Inc.  
West New York, N. J.
- Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Cyanamid & Chem. Corp.  
New York City, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Bonide Chem. Co., Inc.  
Utica, N. Y.  
Boyle Co., The A. S.  
Jersey City, N. J.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
C-A Wood Preserver Co.  
St. Louis, Mo.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.  
Dow Chemical Co.  
Midland, Mich.  
Du Pont de Nemours & Co., Inc., E. I.  
Grasselli Chemicals Dept.  
Wilmington, Del.  
Ft. Dodge Chemical Co.  
Ft. Dodge, Iowa  
Garden Products Co.  
St. Louis, Mo.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
Nott Mfg. Co.  
New York, N. Y.  
Protex Industries, Inc.  
New York, N. Y.  
Rat Lunches Co.  
Carroll, Iowa  
Scarlett & Co., William G.  
Baltimore, Md.  
Shunk Mfg. Co. (Grasshopper)  
Bucyrus, Ohio  
Soilicide Laboratories  
Upper Montclair, N. J.  
Tanglefoot Co., The  
Grand Rapids, Mich.  
Tobacco By-Products & Chem. Corp., Inc.  
Louisville, Ky.  
V & M Products  
Galesburg Mich.
- EXTERMINATORS—RAT**  
American Cyanamid & Chem. Corp.  
New York, N. Y.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
Bohlender Plant Chemicals, Inc.  
Tipp City, Ohio  
Bonide Chem. Co., Inc.  
Utica, N. Y.  
California Spray-Chem. Corp.  
Elizabeth, N. J.  
Douglas Chem. & Supply Co.  
Kansas City, Mo.  
Fort Dodge Chem. Co.  
Fort Dodge, Iowa  
Goulard & Olena, Inc.  
New York, N. Y.  
Innis, Speiden & Co.  
New York, N. Y.  
Killant Chem. Co.  
Ft. Worth, Texas  
K-R-O Company  
Springfield, Ohio  
Rat Lunches Co.  
Carroll, Iowa  
Smith Chemical Co.  
Ames, Iowa  
Soilicide Laboratories  
Upper Montclair, N. J.  
V & M Products  
Galesburg, Mich.  
Woods Chem. Co., Inc., C. G.  
Glendale, Calif.

## FEEDERS—BIRD

Audubon Workshop  
Glencoe, Ill.  
Bishop, Welles L.  
Meriden, Conn.  
Breck's  
Boston, Mass.  
Garden Products Co.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nature Friend, Inc., The  
New York, N. Y.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Woodworking Specialty Co.  
Crystal Lake, Ill.

## FEED HOPPERS

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co., The  
Urbana, Ind.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Makomb Steel Products Co.  
Macomb, Ill.  
National Ideal Co.  
Toledo, Ohio  
Oakes Mfg. Co.  
Tipton, Ind.  
Simplex Brooder Stove Co.  
Grand Rapids, Mich.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.

Western Stoneware Co.  
Monmouth, Ill.

## FEED—POULTRY

Arcady Farms Milling Co.  
Chicago, Ill.  
Cargill, Inc.  
Minneapolis, Minn.  
Conkey Co., G. E.  
Cleveland, Ohio  
Dickinson Seed Co., The Albert  
Chicago, Ill.  
Goldberg Seed & Feed Co.  
Fargo, N. D.  
Kasco Mills, Inc.  
Toledo, Ohio  
Northrup, King & Co.  
Minneapolis, Minn.  
Ouren Seed Co.  
Council Bluffs, Iowa  
Philadelphia Seed Co.  
Philadelphia, Pa.  
Pratt Food Co.  
Philadelphia, Pa.  
Purcell Seed Co.  
Evansville, Ind.  
Quaker Oats Co.  
Chicago, Ill.  
Ralston Purina Co.  
St. Louis, Mo.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Sexauer & Son, Geo. P.  
Brookings, S. D., and Des Moines, Ia.  
Tioga Mills  
Waverly, N. Y.

## FEED—STOCK

Chambers Seed Co., Inc.  
Louisville, Ky.

Dairy Association Co., Inc.  
Lyndonville, Vt.  
Farley-Clark, Inc.  
Bellingham, Wash.  
Funk Bros. Seed Co.  
Bloomington, Ill.  
Kasco Mills, Inc.  
Toledo, Ohio  
Lilly Co., The Chas. H.  
Seattle, Wash.  
Magic Stock Remedy Co., Inc.  
Chattanooga, Tenn.  
Newday Seeds, Inc.  
Fargo, N. D.  
Ouren Seed Co.  
Council Bluffs, Iowa  
Purcell Seed Co.  
Evansville, Ind.  
Tioga Mills  
Waverly, N. Y.  
Wilson & Co.  
Chicago, Ill.  
Wood & Sons, T. W.  
Richmond, Va.

## FENCING

Badger Electric Fence Co.  
Appleton, Wis.  
Continental Steel Corp.  
Kokomo, Ind.  
Lansing Specialties Mfg. Co.  
Lansing, Mich.  
Michigan Wire Goods Co.  
Niles, Mich.  
Plymouth Stamped Metal Co.  
Galion, Ohio

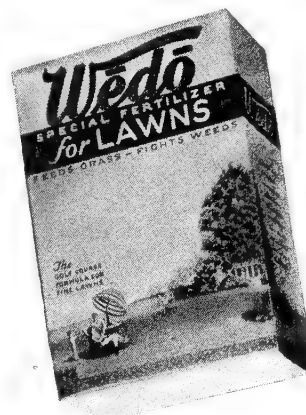
## FERTILIZERS AND PLANT FOODS

Agricultural Laboratories, Inc.  
Columbus, Ohio



# Money - Makers for You in '42

- SUPPLY IS ASSURED
- PRICES ARE GUARANTEED
- BACKED BY ADVERTISING



Sacco Plant Food and Wedo Lawn Fertilizer give you a real money-making opportunity for the coming season.

Both of these quality products, famous for results, will be available to meet your full requirements—and present low prices on Sacco and Wedo are guaranteed to March 1, 1942.

Now, when there's a growing shortage of other consumer goods, it will pay you to put extra sales effort back of Sacco and Wedo. We offer you strong sales support—new full-color store displays, sampler plan, consumer folders, dealer electros—everything needed to get profitable volume.

Stock Sacco and Wedo and give them prominent display in your catalog.

**THE SMITH AGRICULTURAL CHEMICAL CO.**  
630 N. Champion Ave., Columbus, Ohio



*Sacco, the complete  
general purpose  
plant food.*



*Wedo, the  
special lawn  
fertilizer.*

## BALL-BIDDLE FARM & GARDEN SPECIALTIES

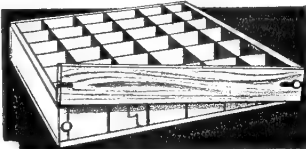
### PROFITABLE ITEMS FOR SEED MERCHANTS

**B-B Craft Board Pot**—Square construction allows ample room for root growth, eliminates waste air space when in flat and insures uniform moisture. Eliminates damage from cut worms and leaves roots undisturbed as bottom unlocks.

**B-B Improved Celery Bleacher**—Exclusive design decreases labor and permits the circulation of air, thereby eliminating rot and mildew. Can be used repeatedly. Full details and distributor's prices on request.



B-B Celery Bleacher Patented



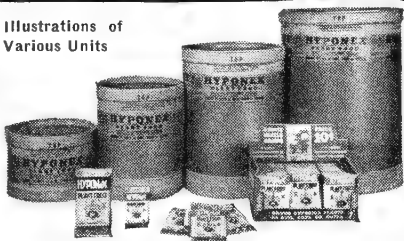
B-B Garden Flat Patented

**B-B Garden Flat**—A home grower's necessity. Made from choice lumber with removable front. Pots can be removed easily without disturbing roots. Write for distributor's prices.

**BALL-BIDDLE COMPANY**  
RIVERTON NEW JERSEY

## HYPONEX PLANT FOOD

Illustrations of Various Units



HYPONEX is so highly concentrated in activated nourishment that it will grow plants in soil, sand, water or barren earth. It's clean—safe—odorless; easy to handle—won't cake—is soluble—will not burn foliage—and is economical. Vitamin B<sub>1</sub> added. It helps build sturdy plants—larger flowers.

### Retail Prices and Weights

1 oz. packet—makes 6 gallons.....	\$0.10
(packed 72 to carton—wt. 7 lbs.)	
(Cartons packed 6 to case—wt. 42 lbs.)	
3 oz. can—makes 18 gallons.....	.25
(packed 36 to case—wt. 13 lbs.)	
1 lb. can—makes 100 gallons.....	1.00
(packed 12 to case—wt. 16 lbs.)	
10 lb. drum .....	8.00
25 lb. drum .....	15.00
50 lb. drum .....	25.00
100 lb. drum .....	40.00

Dealer's prices 33 1/3% off list  
Send \$1 for 1 lb. sample—dollar credited on first order for 10 lbs. or more.

Write for Jobbers' Prices and Information

### USE HYPONEX WITH HOZON—Fertilspray

HOZON—Fertilspray is a simple but scientific device for using the water power in any line to spray HYPONEX and other soluble mixtures in feeding flowers, vegetables, grass, shrubbery and trees.

PRICE \$1.00

**Hydroponic Chemical Co., Inc.**  
315 West 39th St., New York, N. Y.

Agro-Chem. Laboratories  
Toledo, Ohio  
American Agricultural Chem. Co., The  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Dickinson Seed Co., The Albert  
Chicago, Ill.  
Du Pont de Nemours & Co., Inc., E. I.  
Wilmington, Del.  
Ellis Associates, Inc.  
Montclair, N. J.  
Garden Products Co.  
St. Louis, Mo.  
Lilly Co., The Chas. H.  
Seattle, Wash.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros., Chemicals  
Philadelphia, Pa.  
Plantabbs Co.  
Baltimore, Md.  
Premier Peat Moss Corp.  
New York, N. Y.  
Pulverized Manure Co., The  
Chicago, Ill.  
Rorer, Inc., Wm. H.  
Philadelphia, Pa.  
Rose Mfg. Co.  
Beacon, N. Y.  
Scarlett & Co., William G.  
Baltimore, Md.  
Sewerage Commission  
Milwaukee, Wis.  
Shur-Gro Co.  
Pittsburgh, Pa.  
Smith Agricultural Chemical Co., The  
Columbus, Ohio  
Summers Fertilizer Co., The  
Baltimore, Md.  
Swift & Co. (Vigoro)  
Chicago, Ill.  
Tennessee Corp. (Loma)  
New York, N. Y.  
Von Damm, F. H.  
Brooklyn, N. Y.  
Wilson & Co.  
Chicago, Ill.

### FISH FOODS

American Bird Products Co.  
Chicago, Ill.  
Battle Creek Dog Food Co.  
Battle Creek, Mich.  
Burnett's, Inc.  
Newark, N. J.  
Grassfork Fisheries, Inc.  
Martinsville, Ind.  
Hinton & Co.  
New York, N. Y.  
Justrite Co.  
Milwaukee, Wis.  
Lakeview Ponds  
Mt. Airy, Cincinnati, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
National Pet Shops  
St. Louis, Mo.  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Ozark Fisheries, Inc.  
Stoutland, Mo.  
Petpak Products Co.  
Milwaukee, Wis.  
Philadelphia Bird Food Co.  
Philadelphia, Pa.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Spratt's Patent, Ltd.  
Newark, N. J.

### FLATS—SEED

American Florist Supply Co.  
Chicago, Ill.  
Ball-Biddle Co.  
Riverton, N. J.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Norman Sheet Metal Mfg. Co., W. F.  
Nevada, Mo.  
Perma Tag Co. (Plant)  
Grand Rapids, Mich.  
Yoho & Hooker (Cypress)  
Youngstown, Ohio

### FLORISTS' SUPPLIES

American Chemical Paint Co.  
Ambler, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
Bird & Son, Inc.  
East Walpole, Mass.  
Created Ideas, Inc.  
Cincinnati, Ohio  
Garden Products Co.  
St. Louis, Mo.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Hampden Mfg. Co. (Flower Holder)  
New York, N. Y.  
Holmes Seed Co., The  
Canton, Ohio  
Hydroponic Chemical Co., Inc.  
New York, N. Y.  
Leonard & Son, A. M. (Flower Holder)  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
M & K, Ltd. (Flower Holder)  
Portland, Ore.  
Plantabbs Co.  
Baltimore, Md.  
Protex Industries, Inc.  
New York, N. Y.  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Rotenone Products Co. (Tindust)  
East Orange, N. J.  
Seaboard Seed Co.  
Philadelphia, Pa.  
Thompson Co., Wm. T.  
Los Angeles, Calif.

### FLOWERS—ARTIFICIAL

Adler-Jones Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
Cal. Artificial Flower Co.  
Providence, R. I.  
New Art Flower Co. (Wax & Cloth)  
Brooklyn, N. Y.

### FORCERS—SEED AND PLANT

American Fork & Hoe Co.  
Cleveland, Ohio  
Ball-Biddle Co.  
Riverton, N. J.  
Keene Mfg. Co.  
Racine, Wis.

### FORKS—GARDEN

American Florist Supply Co.  
Chicago, Ill.  
Field & Co., Alfred  
New York, N. Y.  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Union Fork & Hoe Co., The  
Columbus, Ohio

### FORMALDEHYDE DUST

American Florist Supply Co.  
Chicago, Ill.



Du Pont de Nemours & Co., Inc., E. I.  
Grasselli Chemicals Dept.  
Wilmington, Del.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Merck & Co., Inc.  
Rahway, N. J.  
Rohm & Haas Co.  
Philadelphia, Pa.

#### FOUNTAINS—DRINKING

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co., The  
Urbana, Ind.  
Hoeft & Co., Inc.  
North Chicago, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Makomb Steel Products Co.  
Macomb, Ill.  
National Ideal Co.  
Toledo, Ohio  
Oakes Mfg. Co.  
Tipton, Ind.  
Simplex Brooder Stove Co.  
Grand Rapids, Mich.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.

#### FRUIT DROP PREVENTION

American Chemical Paint Co.  
Ambler, Pa.  
Dow Chemical Co.  
Midland, Mich.  
Merck & Co., Inc.  
Rahway, N. J.

#### FUMIGANTS

Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Cyanamid & Chem. Co.  
New York, N. Y.

American Florist Supply Co.  
Chicago, Ill.  
California Spray-Chem. Corp.  
Elizabeth, N. J.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.  
Dow Chemical Co.  
Midland, Mich.  
Du Pont de Nemours & Co., Inc., E. I.  
Wilmington, Del.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Innis, Speiden & Co.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mallinckrodt Chemical Works  
St. Louis, Mo.  
Mechling Bros. Chemical Co.  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
Nicotine Mfg. Co.  
St. Louis, Mo.  
Rose Mfg. Co.  
Beacon, N. Y.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Tobacco By-Products & Chemical Corp  
Louisville, Ky.

#### FUMIGANTS—GREENHOUSE

American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.  
Innis, Speiden & Co.  
New York, N. Y.

Merck & Co., Inc.  
Rahway, N. J.

#### FUNGICIDES

American Chemical Paint Co.  
Ambler, Pa.  
American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Ansbacher Siegle Corp.  
Brooklyn, N. Y.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
Bonide Chem. Co., Inc.  
Utica, N. Y.  
California Spray Chem. Corp.  
Elizabeth, N. J.  
Carus Chemical Co.  
La Salle, Ill.  
Chipman Chemical Co., Inc.  
Bound Brook, N. J.  
Curex, Inc.  
Wood Ridge, N. J.  
Dickinson Seed Co., The Albert  
Chicago, Ill.  
Dow Chemical Co.  
Midland, Mich.  
Du Pont de Nemours & Co., Inc., E. I.  
Wilmington, Del.  
Garden Products Co.  
St. Louis, Mo.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Los Angeles Chemical Co.  
Los Angeles, Calif.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mallinckrodt Chemical Works  
St. Louis, Mo.

## NEW... Amazing results



### A Plant Food?

Yes . . . all elements needed to promote vigorous growth and flowering.

### A Fertilizer?

Yes . . . all ingredients specified and guaranteed on label.

### Vitamins?

Yes . . . five of them, including virile B-1, in the proper manner and amount.

### Hormones?

Yes . . . two of these complex organic substances to accelerate healthy growth.

### Profits?

Yes . . . wholesalers and retailers should ask for the special introductory offer.

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252 S. FOURTH STREET • PHILADELPHIA, PA.



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**Protex Industries, Inc.**  
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**Rohm & Haas Co., Inc.**  
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**Rose Mfg. Co.**  
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**Seaboard Seed Co.**  
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**Stauffer Chemical Co.**  
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**Tennessee Corp.**  
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Springfield, N. J.  
**Wood Ridge Mfg. Co.**  
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(Wire Garden Arches)  
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**Woodcraft Co.**  
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**Woodworking Specialty Co.**  
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Dunbar, W. Va.  
**Leroy Plow Co.**  
Leroy, N. Y.  
**Pioneer Mfg. Co.**  
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**Tillavator Co.**  
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Columbus, Ohio  
**Utilitor Co., The**  
Miambsburg, Ohio

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**Yoho & Hooker**  
Youngstown, Ohio

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**Sol-O-Lite Mfg. Co.**  
Chicago, Ill.

**Warp Bros.**  
Chicago, Ill.

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New York, N. Y.  
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**Woodworking Specialty Co.**  
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**Mt. Parnell Fisheries**  
Mercersburg, Pa.  
**Ozark Fisheries, Inc.**  
Stoutland, Mo.  
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**Macdonald Seed Co., The Wm.**  
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**Robinson Seed Co., J. C.**  
Waterloo, Nebr.  
**Waller-Franklin Seed Co.**  
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**Ouren Seed Co.**  
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**Dobbins Mfg. Co.**  
Elkhardt, Ind.

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**American Fork & Hoe Company**  
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**Hamlin Metal Products Co.**  
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**Hudson Mfg. Co., H. D.**  
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Columbus, Ohio

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**American Florist Supply Co.**  
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**Garden Products Co.**  
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**Merck & Co., Inc.**  
Rahway, N. J.  
**Nott Mfg. Co.**  
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**Schell, Inc., Walter S.**  
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New York, N. Y.

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Chicopee Falls, Mass.  
Goodrich Rubber Co., B. F.  
Akron, Ohio  
Goodyear Rubber Co.  
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Piqua, Ohio  
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Leonard & Son, A. M.  
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McCullough Seed Co., The J. Chas.  
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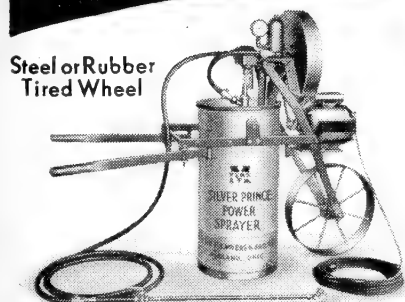
American Florist Supply Co.  
Chicago, Ill.  
Batcheller Associates, Fred E.  
Deland, Fla.  
Bishop, Welles L.  
Meriden, Conn.  
Dodson, Inc., Jos. H.  
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Monmouth, Ill.  
Woodcraft Co., The  
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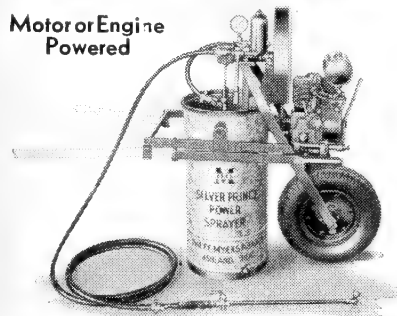


Steel or Rubber  
Tired Wheel

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The MYERS line includes sprayers of every type—engine powered, tractor powered, motor powered, traction driven and hand operated. Wheeled sprayers, stationary sprayers and portable sprayers—tank sprayers, barrel sprayers, bucket sprayers, knapsack and compressed air sprayers. Write for free Spray Catalog today. Excellent dealer opportunities. Let us know if you are interested.

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1423 Orange St. Ashland, Ohio  
"Pump Builders Since 1870"



Motor or Engine  
Powered



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## FOR STEADY, SURE PROFITS

USED BY 3 GENERATIONS  
OF FARMERS AND GARDENERS

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An Activator and Spreader for  
Nicotine Sulphate, also a Sticker  
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A complete self-spreading  
nicotine spray  
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Urbana, Ill.  
Kalo Inoculant Co.  
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Dobbins Mfg. Co.  
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Kansas City, Mo.  
Dow Chemical Co.  
Midland, Mich.  
Hammond Paint & Chem. Co.  
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Nott Mfg. Co.  
New York, N. Y.  
One-Spot Co.  
Elkridge, Md.  
Rotenone Products Co., Inc.  
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Tobacco By-Products & Chem. Corp.  
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Jersey City, N. J.

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Dow Chemical Co.  
Midland, Mich.

Hammond Paint & Chemical Co.  
Beacon, N. Y.

Innis, Speiden & Co.  
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McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Mechling Bros. Chemicals  
Philadelphia, Pa.

Nott Mfg. Co.  
New York, N. Y.

Rose Mfg. Co.  
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Boyle Co., The A. S.  
Jersey City, N. J.  
Buckeye Chem. & Specialty Co.  
New York, N. Y.  
Buist Co., Robert  
Philadelphia, Pa.  
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Protex Industries, Inc.  
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 Stauffer Chemical Co.  
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 Wood Ridge Mfg. Co.  
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 Woodbury, N. J.  
 Dayton Irrigation Co.  
 Dayton, Ohio  
 Hastings Canvas Co.  
 Hastings, Nebr.  
 March Automatic Irrigation Co.  
 Muskegon, Mich.  
 Myers & Bro. Co., The F. E.  
 Ashland, Ohio  
 White Showers, Inc.  
 Detroit, Mich.

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 Leonard & Son, A. M.  
 Piqua, Ohio

McCullough Seed Co., The J. Chas.  
 Cincinnati, Ohio  
 Salta Corp.  
 Jersey City, N. J.  
 Schell, Inc., Walter S.  
 Harrisburg, Pa.

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 Bartlett Mfg. Co.  
 Detroit, Mich.  
 Johnson, Inc., Wm.  
 Newark, N. J.  
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 Piqua, Ohio  
 Union Fork & Hoe Co.  
 Columbus, Ohio

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 American Florist Supply Co.  
 Chicago, Ill.  
 Gogel Co., Walter A. (Plant & Tree)  
 Toledo, Ohio  
 Lansing Specialties Mfg. Co.  
 Lansing, Mich.  
 Leonard & Son, A. M.  
 Piqua, Ohio  
 McCullough Seed Co., The J. Chas.  
 Cincinnati, Ohio  
 Norman Sheet Metal Mfg. Co., W. F.  
 Nevada, Mo.  
 Paxton Products Co.  
 Riverside, Calif.  
 Perma Tag Co. (Wood, Metal & Paper  
 Wired)  
 Grand Rapids, Mich.  
 Schell, Inc., Walter S.  
 Harrisburg, Pa.  
 Wilton Garden Label Co.  
 Wilton, Conn.  
 Yoho & Hooker  
 Youngstown, Ohio

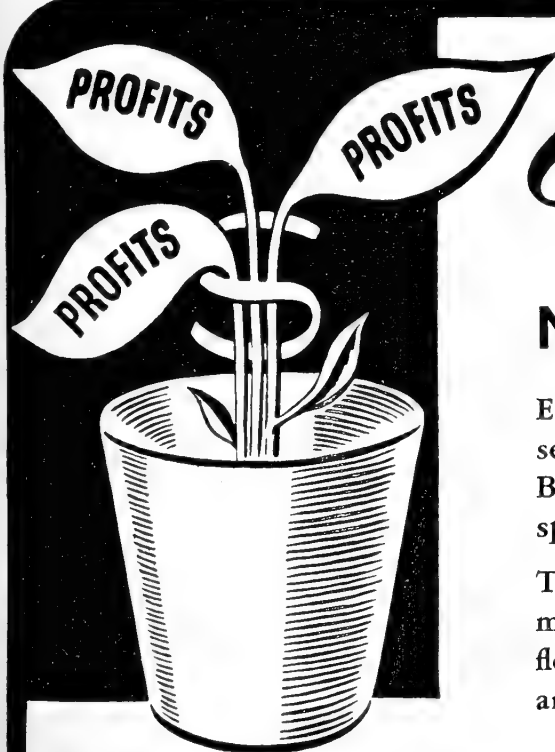
LAWN BURNERS  
 Aeroil Burner Co.  
 West New York, N. J.  
 Dobbins Mfg. Co.  
 Elkhart, Ind.

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 Bartlett Mfg. Co.  
 Detroit, Mich.  
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 Michigan City, Ind.  
 Leonard & Son, A. M.  
 Piqua, Ohio  
 McCullough Seed Co., The J. Chas.  
 Cincinnati, Ohio  
 Schell, Inc., Walter S.  
 Harrisburg, Pa.  
 Union Fork & Hoe Co., The  
 Columbus, Ohio

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 American Florist Supply Co.  
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 Atkins & Durbrow, Inc.  
 New York, N. Y.  
 Albert Dickinson Co., The  
 Chicago, Ill.  
 Hydroponic Chemical Co., Inc.  
 New York, N. Y.  
 McCullough Seed Co., The J. Chas.  
 Cincinnati, Ohio  
 Mechling Bros. Chemicals  
 Philadelphia, Pa.  
 Nott Mfg. Co.  
 New York, N. Y.  
 Pulverized Manure Co., The  
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A reinforcing disc, exclusive with Bird Pots, prevents roots entangling with closing sections of the base and adds to the strength of the pot.

## Grow them in BIRD NEPONSET GREEN POTS

Especially made to provide maximum growth, from seed to maturity—you ship in the same flower pot. Bird Neponset Green Pots are constructed from tough, specially treated, waterproof paper.

They're non-porous and promote even distribution of moisture. They're attractive and decorative. Ask your florist's supplier about Neponset Green, Neponset Red and other flower pots and plant bands made by

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Also one of the originals. High count of pure cultures in humus base. Aerated container to insure life for dated period of one year. Guaranteed high quality.

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(Incorporated)

77 Washington St., Bloomfield, N. J.

Scarlett & Co., William G.  
Baltimore, Md.  
Summers Fertilizer Co., The  
Baltimore, Md.  
Swift & Co.  
Chicago, Ill.  
Woodruff & Sons, Inc., F. H.  
Milford, Conn.

### **LEGUME INOCULANTS**

Agricultural Laboratories, Inc.  
Columbus, Ohio  
Craver-Dickinson Seed Co.  
Buffalo, N. Y.  
Albert Dickinson Co., The  
Chicago, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nitragin Co., Inc., The  
Milwaukee, Wis.  
Nott Mfg. Co.  
New York, N. Y.  
Scarlett & Co., William G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Urbana Laboratories, The  
Urbana, Ill.

### **LIME**

American Florist Supply Co.  
Chicago, Ill.  
International Agricultural Corp.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Marble Cliff Quarries Co.  
Columbus, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.

### **LIQUID PLANT FOOD**

American Florist Supply Co.  
Chicago, Ill.



## **MANURES**

Wizard Manures are highest quality, dehydrated pure manures, direct heat sterilized to kill all weed seeds. Attractively packed and consistently advertised for more than 33 years. A free sales building service makes Wizard the quickest selling and most profitable brand to handle.



Packed in  
100, 50 and  
25 pound sift-  
proof paper  
lined bags.

Also in  
attractive  
10, 5 and 2  
pound paper  
bags.

**The Pulverized Manure Co.**  
395 Union Stock Yards, Chicago



**SUPPORTED BY**  
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**and Field Tests**

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**URBANA, ILLINOIS**

**SEED DEALERS!**  
**SELL**



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**TO YOUR TRADE**

**A Quality Product Containing Only**  
**Field Tested Proven Superior Strains**





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St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nott Mfg. Co.  
New York, N. Y.  
William H. Rorer, Inc.  
Philadelphia, Pa.  
Thompson Co., William T.  
Los Angeles, Calif.

#### LITTER—POULTRY

American Florist Supply Co.  
Chicago, Ill.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
Dickinson Co., The Albert  
Chicago, Ill.  
Land O'Lakes Creameries, Inc.  
Minneapolis, Minn.

National Ideal Co.  
Toledo, Ohio  
New Amsterdam Import & Supply Co.,  
Inc.  
New York, N. Y.  
Julius Loewith, Inc.  
New York, N. Y.  
Premier Peat Moss Corp.  
New York, N. Y.  
Scarlett & Co., Wm. G.  
Baltimore, Md.

#### MANURE—COW

American Florist Supply Co.  
Chicago, Ill.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
Goulard & Olena, Inc.  
New York, N. Y.  
Pulverized Manure Co., The  
Chicago, Ill.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Swift & Co.  
Chicago, Ill.

#### MANURE—SHEEP

American Florist Supply Co.  
Chicago, Ill.  
Brent Seed Co., C. S.  
Lexington, Ky.  
Goulard & Olena, Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Philadelphia Seed Co., Inc.  
Philadelphia, Pa.  
Pulverized Manure Co., The  
Chicago, Ill.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Shur-Gro Company  
Pittsburgh, Pa.  
Stockdale Fertilizer Co.  
Morris, Ill.  
Summers Fertilizer Co., The  
Baltimore, Md.  
Swift & Co.  
Chicago, Ill.

#### \* MARKERS—PLANT

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Lansing Specialties Mfg. Co.  
Lansing, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Midwest Metal Specialties Co.  
Aurora, Ill.  
Norman Sheet Metal Mfg. Co., W. F.  
Nevada, Mo.  
Plantabbs Corp.  
Baltimore, Md.  
Smith Industries (Metal)  
Xenia, Ohio  
Wilton Garden Label Co.  
Wilton, Conn.  
Yoho & Hooker  
Youngstown, Ohio

#### MIXERS—SEED OR FEED

Brower Mfg. Co.  
Quincy, Ill.  
Ferrell & Co., A. T.  
Saginaw, Mich.

**Leader in Quality  
Leader in Value**

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*a Superior Certified Product*  
**PEAT MOSS**

PREMIER offers the largest bale of  
the best quality Peat Moss—the  
most value per dollar. Dependable  
service from the largest operators  
in the Western Hemisphere.

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535 Fifth Avenue, New York, N. Y.

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for*

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Meal and Garden Fer-  
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Carloads

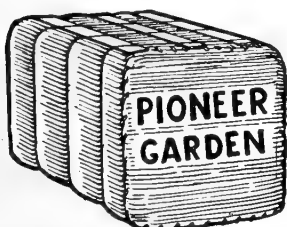


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FERTILIZER CO.**

*Stock Exchange Building*  
**BALTIMORE MARYLAND**

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PIONEER brand—finest grade, 100% pure  
sphagnum moss peat for horticultural use.  
Large pressure packed bales.



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Durbrow has been headquarters for  
top quality peat moss products.

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quality, pure sphagnum peat moss  
that is ideal for horticultural use.  
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quantity prices.

**ATKINS & DURBROW, Inc.**  
165 John Street, New York, N. Y.

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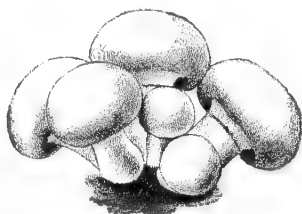
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BOSTON

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An all organic fertilizer combining cow and  
poultry manures with peat moss. Free from  
weed seeds. Safe, clean, easy to use.





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Vigorous, quick starting, certain. Great improvement over old type brick and manure spawn.

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GARDEN PEAT-MOSS

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Oliver Mfg. Co.  
St. Louis, Mo.  
Prater Pulverizer Co.  
Cicero, Ill.  
Sedberry, Inc., J. B.  
Franklin, Tenn.  
Seedburo Equipment Co.  
Chicago, Ill.  
Sprout, Waldron & Co.  
Muncy, Pa.

### MOSS—PEAT

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
American Soil Sponge Selling Corp.  
New York, N. Y.  
Atkins & Durbrow, Inc. (Horticultural)  
New York, N. Y.  
Dickinson Co., The Albert  
Chicago, Ill.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Holmes Seed Co., The  
Canton, Ohio  
Loewith, Inc., Julius  
New York, N. Y.  
Maine Peat Moss Co., Inc.  
Jonesport, Maine  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.  
New York, N. Y.  
Michigan Peat Co.  
Buchanan, Mich.  
New Amsterdam Import & Supply Co., Inc.  
New York, N. Y.

Ouren Seed Co.  
Council Bluffs, Iowa  
Philadelphia Seed Co., Inc.  
Philadelphia, Pa.  
Premier Peat Moss Corp.  
New York, N. Y.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.

### MOSS—SPHAGNUM

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
American Soil Sponge Selling Corp.  
New York, N. Y.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
Holmes Seed Co., The  
Canton, Ohio  
Loewith, Inc., Julius  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.  
New York, N. Y.  
Premier Peat Moss Corp.  
New York, N. Y.

### MOTH KILLERS

Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Cyanamid & Chem. Corp.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.

Dow Chemical Co.  
Midland, Mich.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Innis, Speiden & Co.  
New York, N. Y.  
Killant Chem. Co.  
Ft. Worth, Texas  
Mallinckrodt Chem. Works  
St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
Soilicide Laboratories  
Upper Montclair, N. J.

### MOWERS—LAWN

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
Clemson Bros., Inc.  
Middletown, N. Y.  
Coldwell Lawn Mower Co.  
Newburgh, N. Y.  
Cooper Mfg. Co. (Power)  
Marshalltown, Iowa  
Eclipse Lawn Mower Co.  
Prophetstown, Ill.  
Gilson-Bolens Mfg. Co. (Power)  
Port Washington, Wis.  
Jacobsen Mfg. Co.  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
Moto-Mower Co. (Power)  
Detroit, Mich.  
Robertson Mfg. Co.  
Michigan City, Ind.  
Shaw Mfg. Co. (Power)  
Galesburg, Kans.  
Yardman, Inc.  
Jackson, Mich.

### MULCH

American Florist Supply Co.  
Chicago, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

### MUSHROOM SPAWN

American Florist Supply Co.  
Chicago, Ill.  
Chester County Mushroom Laboratories  
West Chester, Pa.  
Lambert's Mushroom Laboratories  
Coatesville, Pa.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Oriental Seeds & Plants Co.  
San Francisco, Calif.

### NESTS—POULTRY

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Hoeft & Co.  
North Chicago, Ill.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.

### NOVELTIES

Aerolux Light Corp.  
New York, N. Y.  
Carter Products Co.  
Cleveland, Ohio  
Created Ideas, Inc.  
Cincinnati, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Shure Co., N.  
Chicago, Ill.  
Vaughan Seed Store  
Chicago, Ill.

Worcester Wire Novelty Co., Inc.  
Baltimore, Md.

#### NOZZLES—HOSE

American Florist Supply Co.  
Chicago, Ill.

Carter Products Corp.  
Cleveland, Ohio

Leonard & Son, A. M.  
Piqua, Ohio

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Perfection Sprinkler Co.  
Plymouth, Mich.

Smith & Co., D. B.  
Utica, N. Y.

#### NUTRIENT SOLUTION TESTING

Urbana Laboratories, The  
Urbana, Ill.

#### OYSTER SHELLS

Land O'Lakes Creameries, Inc.  
Minneapolis, Minn.

Oyster Shell Prod. Corp.  
New Rochelle, N. Y.

Scarlett & Co., Wm. G.  
Baltimore, Md.

Shell Builder, Inc.  
Houston, Texas

Universal Crushed Shell Co.  
Muscatine, Iowa

Wood & Sons, T. W.  
Richmond, Va.

#### PAINTS—GREENHOUSE

American Florist Supply Co.  
Chicago, Ill.

Goulard & Olena, Inc.  
New York, N. Y.

Hammond Paint & Chem. Co.  
Beacon, N. Y.

#### PEAT MOSS

(See Moss-Peat)

#### PENCILS—WATERPROOF LABEL

American Bulb Co.  
Chicago, Ill.

American Florist Supply Co.  
Chicago, Ill.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### PETS

Deedie's Pet Shop  
Newark, N. J.

National Pet Shops  
St. Louis, Mo.

So. Calif. Bird & Pet Exchange  
Bell, Calif.

Zenith Novelty Co.  
New York, N. Y.

#### PET SUPPLIES

Battle Creek Dog Food Co.  
Battle Creek, Mich.

Chappel Bros., Inc.  
Rockford, Ill.

Dickinson Co., The Albert  
Chicago, Ill.

Holmes Seed Co., The  
Canton, Ohio

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Mechling Bros. Chemicals  
Philadelphia, Pa.

National Pet Shops  
St. Louis, Mo.

Schoemann & Mayer, Inc.  
New York, N. Y.

Spratt's Patent, Ltd.  
Newark, N. J.

Vaughan Seed Store  
Chicago, Ill.

#### PLANT COVERS

Germain Seed & Plant Co.  
Los Angeles, Calif.

Oldmill Paper Products Corp.  
Long Island City, N. Y.

Paxton Products Co.  
Riverside, Calif.

Vaughan Seed Store  
Chicago, Ill.

#### PLANTERS

Acmeline Mfg. Co.

Traverse City, Mich.

Allen & Co., Inc., S. L.  
Philadelphia, Pa.

Case Co., J. I.  
Racine, Wis.

Coleman Bros. Mfg. Co.  
New Albany, Ind.

Dobbins Mfg. Co.  
Elkhart, Ind.

Farquhar Co., Ltd., A. B.  
York, Pa.

Gardex, Inc.

Michigan City, Ind.

G-L Products Co. (Bulb)  
Toledo, Ohio

Holland Celery Planter Co.  
Holland, Mich.

Lewis Seed Co.  
Louisville, Ky.

Magee Co., Thos. J.  
Germantown, Philadelphia, Pa.

Masters Planter Co.  
Benton Harbor, Mich.

S. & H. Set Onion Planter Co.  
Pleasant Valley, Iowa

Vaughan Seed Store  
Chicago, Ill.

#### CUT FLOWER PLANT FOOD

American Chemical Paint Co.

Ambler, Pa.

American Florist Supply Co.  
Chicago, Ill.

Floralife  
Chicago, Ill.

Flower Foods, Inc.  
Maywood, Ill.

Garden Products Co.  
St. Louis, Mo.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Thompson Co., William T.  
Los Angeles, Calif.

Vaughan Seed Store  
Chicago, Ill.

#### PLANT FOODS

(See also Fertilizers)

Agricultural Laboratories, Inc.  
Columbus, Ohio

American Agricultural Chemical Co., The  
New York, N. Y.

Atkins & Durbrow, Inc.  
New York, N. Y.

Garden Products Co.  
St. Louis, Mo.

Goulard & Olena, Inc.  
New York, N. Y.

Holmes Seed Co., The  
Canton, Ohio

Hydroponic Chemical Co., Inc.  
New York, N. Y.

McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

Mechling Bros. Chemicals  
Philadelphia, Pa.

Nott Mfg. Co.  
New York, N. Y.

Plantabbs Co.  
Baltimore, Md.

Pulverized Manure Co., The  
Chicago, Ill.

Rorer, Inc., William H.  
Philadelphia, Pa.

Schell, Inc., Walter S.  
Harrisburg, Pa.

Smith Agricultural Chem. Co., The  
Columbus, Ohio

Swift & Co.  
Chicago, Ill.

Tennessee Corp.  
New York, N. Y.

Thompson Co., William T.  
Los Angeles, Calif.



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And we mean a good dog food, a well-known brand, one that will sell on sight, and extensively fed throughout the country.

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- Nationally-Advertised
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- Reasonably Priced

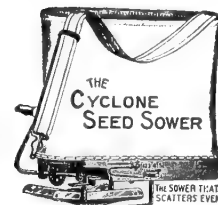
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Has given dependable service for 74 years. Is used in seed growing areas throughout the U.S. Show a cut in your Catalog. Be prepared to fill orders.

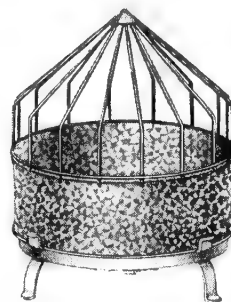
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Vaughan Seed Store  
Chicago, Ill.

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Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Chemical Paint Co.  
Ambler, Pa.  
Dow Chemical Co.  
Midland, Mich.  
Goulard & Olena, Inc.  
New York, N. Y.  
Garden Products Co.  
St. Louis, Mo.  
Hydroponic Chemical Co., Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Merck & Co., Inc.  
Rahway, N. J.  
Nott Mfg. Co.  
New York, N. Y.  
Plantabbs Co.  
Baltimore, Md.  
Pulverized Manure Co., The  
Chicago, Ill.  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Swift & Co.  
Chicago, Ill.  
Thompson Co., William T.  
Los Angeles, Calif.  
Twin City Seed Co.  
Minneapolis, Minn.  
Vaughan Seed Store  
Chicago, Ill.

#### PLANT VITAMINS

Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Chemical Paint Co.  
Ambler, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
Burgess Seed & Plant Co.  
Galesburg, Mich.  
Garden Products Co.  
St. Louis, Mo.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hydroponic Chemical Co., Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Merck & Co., Inc.  
Rahway, N. J.  
Nott Mfg. Co.  
New York, N. Y.  
Plantabbs Co.  
Baltimore, Md.  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Thompson Co., William T.  
Los Angeles, Calif.  
Vaughan Seed Store  
Chicago, Ill.

#### PLOWS

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
Gardex, Inc.  
Michigan City, Ind.

#### POLE PRUNERS

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio

#### POT COVERS—FLOWER

American Bulb Co.  
Chicago, Ill.

American Florist Supply Co.  
Chicago, Ill.

Bird & Son, Inc.  
East Walpole, Mass.  
Oldmill Paper Products Corp.  
Long Island City, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

#### POT SAUCERS

American Florist Supply Co.  
Chicago, Ill.  
Bird & Son, Inc.  
East Walpole, Mass.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Zane Pottery Co.  
Zanesville, Ohio

#### POTS—FLOWER

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
Ball-Biddle Co. (Fibre)  
Riverton, N. J.  
Bird & Son, Inc. (Paper)  
East Walpole, Mass.  
Fertile Products, Inc.  
Bridgeport, Conn.  
Haeger Potteries  
Dundee, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Western Stoneware Co.  
Monmouth, Ill.

#### POTS—TRANSPLANTING

Ball-Biddle Co. (Fiber)  
Riverton, N. J.  
Bird & Son, Inc. (Paper)  
East Walpole, Mass.  
Fertile Products, Inc.  
Bridgeport, Conn.  
Goulard & Olena, Inc.  
New York, N. Y.  
Iris Paper Flower Pot Co.  
Philadelphia, Pa.  
Kervan Co.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Paxton Products Co.  
Riverside, Calif.  
Vaughan Seed Store  
Chicago, Ill.

#### POSTERS

Burpee Co., W. Atlee  
Philadelphia, Pa.  
Central Tag Co.  
Chicago, Ill.  
McFarland Publicity Service  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Litho. Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.

#### POWER LAWN MOWERS

Allen & Co., Inc., S. L.  
Silver Creek, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Eclipse Lawn Mower Co.  
Prophetstown, Ill.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Vaughan Seed Store  
Chicago, Ill.

#### POWER SPRAYERS

Aeroil Burner Co.  
West New York, N. J.  
American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.

Dobbins Mfg. Co.  
Elkhart, Ind.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Myers & Bro. Co., The F. E.  
Ashland, Ohio

#### PROTECTORS—LAWN

Gogel Co., Walter A.  
Toledo, Ohio  
Lansing Specialties Mfg. Co.  
Lansing, Mich.  
Merck & Co., Inc.  
Rahway, N. J.  
Michigan Wire Goods  
Niles, Mich.

#### PROTECTORS—PLANT

Ball-Biddle Co.  
Riverton, N. J.  
California Fruit Wrapping Mills, Inc.  
Pomona, Calif.  
Germain's Hotkaps Mfg. Div.  
Los Angeles, Calif.  
Harris Mfg. Co., A. W.  
Sleepy Eye, Minn.  
Oldmill Paper Products Corp.  
Long Island City, N. Y.  
Paxton Products Co.  
Riverside, Cal.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Vaughan Seed Store  
Chicago, Ill.  
Woodruff & Sons, Inc., F. H.  
Milford, Conn.

#### PRUNERS

American Florist Supply Co.  
Chicago, Ill.  
Atkins & Co., E. C.  
Indianapolis, Ind.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Clark & Son, Walter E.  
Milford, Conn.  
Disston & Sons, Inc., Henry  
Philadelphia, Pa.  
Graham & Co., Inc., John H.  
New York, N. Y.  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Sons, A. M.  
Piqua, Ohio  
Naefley Transplanter Co.  
Memphis, N. Y.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Tiffany, Carroll R.  
Conklin, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

#### POTTERY

(See Bowls—Bulb)

#### PUMPS—HAND & POWER

American Florist Supply Co.  
Chicago, Ill.  
Myers & Bro. Co., The F. E.  
Ashland, Ohio

#### PUMP JACKS

Myers & Bro. Co., The F. E.  
Ashland, Ohio

#### PUTTY

American Florist Supply Co.  
Chicago, Ill.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.

#### PYRETHRUM

American Florist Supply Co.  
Chicago, Ill.  
Boyle Co., The A. S.  
Jersey City, N. J.

Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
McCormick Sales Co., The  
Baltimore, Md.  
McLaughlin Gormley King Co.  
Minneapolis, Minn.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Protex Industries, Inc.  
New York, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

**RAFFIA**  
American Florist Supply Co.  
Chicago, Ill.  
American Reedcraft Corp.  
New York, N. Y.  
Buist Co., Robert  
Philadelphia, Pa.  
Goulard & Olena, Inc.  
New York, N. Y.  
Holmes Seed Co., The  
Canton, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio  
Loewith, Inc., Julius  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.  
New York, N. Y.  
Meehan Co., Thomas B.  
Dresher, Pa.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Vaughan Seed Store  
Chicago, Ill.

**RAKES**  
American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Gardex, Inc.  
Michigan City, Ind.  
Hamlin Metal Products Co.  
Akron, Ohio  
Kautenberg Co., W. E.  
Freeport, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Union Fork & Hoe Co., The  
Columbus, Ohio  
Vaughan Seed Store  
Chicago, Ill.

**REED MATS**  
Loewith, Inc., Julius  
New York, N. Y.  
McHutchison & Co.  
New York, N. Y.

**REELS—GARDEN LINE**  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio

**REELS—HOSE**  
American Florist Supply Co.  
Chicago, Ill.  
Anker-Holth Mfg. Co.  
Port Huron, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Specialty Mfg. Co.  
St. Paul, Minn.  
Vaughan Seed Store  
Chicago, Ill.

#### REMEDIES—PET

Battle Creek Dog Food Co.  
Battle Creek, Mich.  
Boyle Co., A. S.  
Jersey City, N. J.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Justrite Co.  
Milwaukee, Wis.  
Le Gear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Nature Friend, Inc., The  
New York, N. Y.  
One-Spot Co.  
Elkridge, Md.  
Polk-Miller Products Corp.  
Richmond, Va.  
Q-W Laboratories, Inc.  
Bound Brook, N. J.  
Schoemann & Mayer, Inc.  
New York, N. Y.  
Spratt's Patent, Ltd.  
Newark, N. J.  
Vaughan Seed Store  
Chicago, Ill.

#### REMEDIES—POULTRY

Brower Mfg. Co.  
Quincy, Ill.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Chic-Tone Co., Inc.  
Bath, Pa.  
Conkey Co., G. E.  
Cleveland, Ohio  
Land O'Lakes Creameries, Inc.  
Minneapolis, Minn.  
Lee Co., Geo. H.  
Omaha, Nebr.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.  
Rahway, N. J.  
One-Spot Co.  
Elkridge, Md.  
Parke, Davis & Co.  
Detroit, Mich.  
Pratt Food Co.  
Philadelphia, Pa.  
Russell Co., I. D.  
Kansas City, Mo.  
Salsbury's Laboratories, Dr.  
Charles City, Iowa  
Standard Chem. Mfg. Co.  
Omaha, Nebr.  
Tobacco By-Products & Chemical Corp.  
Louisville, Ky.

#### REMEDIES—STOCK

Chambers Seed Co.  
Louisville, Ky.  
Chattanooga Medicine Co.  
Chattanooga, Tenn.  
Dairy Association Co.  
Lyndonville, Vt.  
Goulard & Olena, Inc.  
New York, N. Y.  
Lee Co., Geo. H.  
Omaha, Nebr.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Lilly Co., The Chas. H.  
Seattle, Wash.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Pratt Food Co.  
Philadelphia, Pa.  
Scott Co., I. W.  
Pittsburgh, Pa.

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Cedar Hill Formulae Co., The  
New Britain, Conn.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Holmes Seed Co.  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Protex Industries, Inc.  
New York, N. Y.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Vaughan Seed Store  
Chicago, Ill.  
Woodruff & Sons, Inc., F. H.  
Milford, Conn.

#### REPELLENTS—DOGS, ETC.

Bohlender Plant Chemicals, Inc.  
Tipp City, Ohio  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Holmes Seed Co.  
Canton, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Nature Friend, Inc., The  
New York, N. Y.  
Nott Mfg. Co.  
New York, N. Y.  
Protex Industries, Inc.  
New York, N. Y.  
Sudbury Laboratory  
South Sudbury, Mass.  
Tobacco By-Products & Chem. Corp.  
Louisville, Ky.  
Vaughan Seed Store  
Chicago, Ill.

#### REPELLENTS—INSECT

Agricultural Laboratories, Inc.  
Columbus, Ohio  
Bohlender Plant Chemicals, Inc.  
Tipp City, Ohio  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
LeGear Medicine Co., Dr. L. D.  
St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
National Carbon Co., Inc.  
New York, N. Y.  
Tanglefoot Co., The  
Grand Rapids, Mich.  
Tobacco By-Products & Chemical Corp.,  
Inc.  
Louisville, Ky.  
Vaughan Seed Store  
Chicago, Ill.

#### REPELLENTS—RODENT

Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Florist Supply Co.  
Chicago, Ill.  
Atkins & Durbrow, Inc.  
New York, N. Y.  
California Spray Chemical Corp.  
Elizabeth, N. J.

#### Douglas Chemical & Supply Co.

Kansas City, Mo.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Rat Lunches Co.  
Carroll, Iowa  
V & M Products  
Galesburg, Mich.  
Vaughan Seed Store  
Chicago, Ill.

#### ROCK PHOSPHATE

American Agricultural Chemical Co., The  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Summers Fertilizer Co., The  
Baltimore, Md.

#### ROLLERS—LAWN

American Florist Supply Co.  
Chicago, Ill.  
Caledonia Bean Harvester Works  
Caledonia, N. Y.  
Gardex, Inc.  
Michigan City, Ind.  
Graham & Co., John H.  
New York, N. Y.  
Holmes Seed Co., The  
Canton, Ohio  
Jackson Mfg. Co.  
Harrisburg, Pa.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Worthington Mower Co.  
Stroudsburg, Pa.

#### ROOT FORMING HORMONES

American Chemical Paint Co.  
Ambler, Pa.  
American Florist Supply Co.  
Chicago, Ill.  
Garden Products Co.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Merck & Co., Inc.  
Rahway, N. J.  
Nott Mfg. Co.  
New York, N. Y.  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Scarlett & Co., Wm. G.  
Baltimore, Md.  
Seaboard Seed Co.  
Philadelphia, Pa.  
Thompson Co., Wm. T.  
Los Angeles, Calif.  
Vaughan Seed Store  
Chicago, Ill.

#### ROTENONE

American Florist Supply Co.  
Chicago, Ill.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
McCormick Sales Co., The  
Baltimore, Md.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Protex Industries, Inc.  
New York, N. Y.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Vaughan Seed Store  
Chicago, Ill.

#### SALAMANDERS

Aeroil Burner Co.  
West New York, N. J.

#### SASH—HOT BED

American Florist Supply Co.  
Chicago, Ill.  
Foley Greenhouse Mfg. Co.  
Chicago, Ill.  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

#### SCALES—EGG

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Exact Weight Scale Co.  
Columbus, Ohio  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Prospectus Mfg. Co.  
Minneapolis, Minn.  
Specialty Mfg. Co.  
St. Paul, Minn.

#### SCRAPERS—ROOST AND FLOOR

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Union Fork & Hoe Co.  
Columbus, Ohio

#### SCREW HOOKS—(LAG THREAD)

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio

#### SEDGEPEAT

American Soil Sponge Selling Corp.  
New York, N. Y.

#### SEED AND BULB STIMULANT

American Chemical Paint Co.  
Ambler, Pa.  
Dow Chemical Co.  
Midland, Mich.  
Garden Products Co.  
St. Louis, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Rorer, Inc., William H.  
Philadelphia, Pa.  
Seaboard Seed Co.  
Philadelphia, Pa.  
Thompson Co., William T.  
Los Angeles, Calif.  
Vaughan Seed Store  
Chicago, Ill.

#### SEEDERS

Allen & Co., S. L.  
Philadelphia, Pa.  
American Agricultural Chem. Co.  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Cyclone Seeder Co.  
Urbana, Ind.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
Leonard & Son, A. M.  
Piqua, Ohio  
Lewis Seed Co.  
Louisville, Ky.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Masters Planter Co.  
Benton Harbor, Mich.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Scarlett & Co., Wm. G.  
Baltimore, Md.

Smith Agri. Chem. Co.  
Columbus, Ohio  
Swift & Co.  
Chicago, Ill.  
Tennessee Corp.  
New York, N. Y.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
Vaughan Seed Store  
Chicago, Ill.  
Woodruff & Sons, Inc., F. H.  
Milford, Conn.

#### SEED STORAGE AND DISTRIBUTION

Banks, Inc., Wm. H.  
Chicago, Ill.  
Binyon-O'Keefe Fireproof Storage Co.  
Ft. Worth, Texas  
Bush Terminal Co.  
New York, N. Y.  
Crooks Terminal Warehouse  
Chicago, Ill.  
Douglas-Guardian Warehouse Corp.  
Chicago, Ill.  
Edgerton, Leslie  
Minneapolis, Minn.  
General Storage Co.  
Cleveland, Ohio  
Inland Warehousing Co.  
Chicago, Ill.  
Lilly Co., Chas. H.  
Seattle, Wash.  
Nolin, W. T.  
Hamburg, La.  
Purcell Seed Co.  
Evansville, Ind.  
Shuler & Smoak  
Orangeburg, S. C.  
Shultz Seed Co.  
Olney, Ill.

#### SETTERS—PLANT

Acmeline Mfg. Co.  
Traverse City, Mich.  
American Florist Supply Co.  
Chicago, Ill.  
Dobbins Mfg. Co.  
Elkhart, Ind.  
Hamilton Mfg. Co.  
Hamilton, Mich.  
Lewis Seed Co.  
Louisville, Ky.  
Masters Planter Co.  
Benton Harbor, Mich.  
Nagley Transplanter Co.  
Memphis, N. Y.  
Oldmill Paper Products Corp.  
Long Island City, N. Y.  
S & H Set Onion Planter Co.  
Pleasant Valley, Iowa

#### SHEARS—GRASS

Alliance Mfg. Co.  
Alliance, Ohio  
American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
North Wayne Tool Co.  
Oakland, Me.  
Peck, Stow & Wilcox Co.  
Southington, Conn.  
Smith & Son, Inc., Seymour  
Oakville, Conn.  
Tiffany, Carroll R.  
Conklin, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

#### SHOVELS

American Florist Supply Co.  
Chicago, Ill.

Baldwin-Wyoming Co.  
North Easton, Mass.  
Hamlin Metal Products Co.  
Akron, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Union Fork & Hoe Co., The  
Columbus, Ohio

#### SHREDDERS—SOIL

American Florist Supply Co.  
Chicago, Ill.  
Kemp Mfg. Co. (Power)  
Erie, Pa.

#### SICKLES

American Florist Supply Co.  
Chicago, Ill.  
Leonard & Son, A. M. (Sod)  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
North Wayne Tool Co.  
Oakland, Me.

#### SNAIL AND SLUG BAIT

Agricultural Laboratories, Inc.  
Columbus, Ohio  
American Florist Supply Co.  
Chicago, Ill.  
Boyle Co., The A. S.  
Jersey City, N. J.  
California Spray Chemical Co.  
Elizabeth, N. J.  
Goulard & Olena, Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Vaughan Seed Store  
Chicago, Ill.

#### SODIUM FLUORIDE

Mallinckrodt Chemical Works  
St. Louis, Mo.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Merck & Co., Inc.,  
Rahway, N. J.  
Nott Mfg. Co.  
New York, N. Y.

#### SOIL CONDITONERS

American Soil Sponge Selling Corp.  
New York, N. Y.

#### SOIL INOCULANTS

Agricultural Laboratories, Inc.  
Columbus, Ohio  
Craver-Dickinson Seed Co.  
Buffalo, N. Y.  
Dickinson Co., The Albert  
Chicago, Ill.  
Earp-Thomas Lab. Inc.,  
Bloomfield, N. J.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Nitragin Co., Inc., The  
Milwaukee, Wis.  
Urbana Laboratories, The  
Urbana, Ill.

#### SOIL TESTING SOLUTIONS

American Florist Supply Co.  
Chicago, Ill.  
Dickinson Co., The Albert  
Chicago, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Soilicide Laboratories  
Montclair, N. J.

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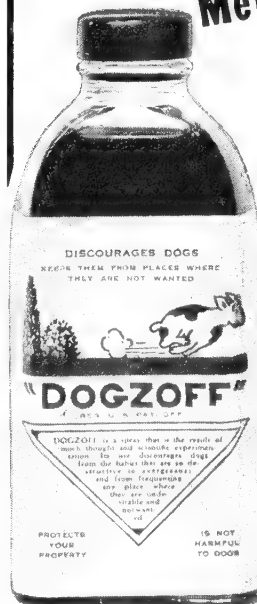
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Urbana Laboratories, The  
Urbana, Ill.

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Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Union Fork & Hoe Co., The  
Columbus, Ohio

#### SPIKER AND TAMPER

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M. (Sod)  
Piqua, Ohio  
Stoner-Maurer Co.  
Monroe, Mich.

#### SPRAYER NOZZLES

American Florist Supply Co.  
Chicago, Ill.  
Dobbins Mfg. Co.  
Elkhart, Ind.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Myers & Bro. Co., The F. E.  
Ashland, Ohio  
Vaughan Seed Store  
Chicago, Ill.

#### SPRAYERS

Acmeline Mfg. Co.  
Traverse City, Mich.  
Aeroil Burner Co.  
West New York, N. J.  
American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Bean Mfg. Co., John  
Lansing, Mich.  
Boyle Co., The A. S.  
Jersey City, N. J.  
Brown Co., E. C.  
Rochester, N. Y.  
Budwig Mfg. Co.  
Burbank, Calif.  
Campbell-Hausfeld Co., The  
Harrison, Ohio  
Champion Sprayer Co.  
Detroit, Mich.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Dobbins Mfg. Co.  
Elkhart, Ind.  
Feeny Mfg. Co.  
Muncie, Ind.  
"Friend" Mfg. Co.  
Gasport, N. Y.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Leonard & Son, A. M.  
Piqua, Ohio  
Lowell Sprayer Co.  
Lowell, Mich.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Myers & Bro. Co., The F. E.  
Ashland, Ohio  
Parco Products Co.  
Allentown, Pa.  
Protex Industries, Inc.  
New York, N. Y.  
Smith & Co., Inc., D. B.  
Utica, N. Y.

Thompson Co., William T.  
Los Angeles, Calif.  
Universal Metal Products Co.  
Saranac, Mich.  
U. S. Seed Co.  
St. Louis, Mo.  
Vaughan Seed Store  
Chicago, Ill.

#### SPREADERS—FERTILIZER

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Agricultural Chemical Co., The  
New York, N. Y.  
American Florist Supply Co.  
Chicago, Ill.  
Case Co., J. I.  
Racine, Wis.  
Cyclone Seeder Co., The  
Urbana, Ind.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Masters Planter Co.  
Benton Harbor, Mich.  
Pioneer Thresher Co.  
Shortsville, N. Y.  
Plantabbs Corp.  
Baltimore, Md.  
Scarlett & Co., William G.  
Baltimore, Md.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Smith Agri. Chem. Co., The  
Columbus, Ohio  
Swift & Co.  
Chicago, Ill.  
Tennessee Corp.  
New York, N. Y.  
Thompson & Sons, O. E.  
Ypsilanti, Mich.

#### SPRINKLERS—LAWN

American Florist Supply Co.  
Chicago, Ill.  
Armstrong Electric Products Corp.  
Huntington, W. Va.  
Campbell Irrigation Co.  
Woodbury, N. J.  
Carter Products Co.  
Cleveland, Ohio  
Coldwell Lawn Mower Co.  
Newburgh, N. Y.  
Dayton Irrigation Co.  
Dayton, Ohio  
Hozon Co.  
Warrensville, Ohio  
Imperial Bit & Snap Co.  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
March Automatic Irrigation Co.  
Muskegon, Mich.  
National Mfg. Co.  
Lincoln, Nebr.  
Perfection Sprinkler Co.  
Plymouth, Mich.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Turner Brass Works  
Sycamore, Ill.  
Vaughan Seed Store  
Chicago, Ill.  
White Showers, Inc.  
Detroit, Mich.

#### STAKES—PLANT

American Florist Supply Co.  
Chicago, Ill.  
American Reedcraft Corp. (Bamboo)  
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Growers Lumber Co.  
Tullytown, Pa.  
Handle & Excelsior Co.  
Picture Rocks, Pa.  
Lansing Specialties Mfg. Co.  
Lansing, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.,  
New York, N. Y.  
Michigan Wire Goods Co.  
Niles, Mich.  
Perma Tag Co.  
Grand Rapids, Mich.  
Root Co., The A. I.  
Medina, Ohio  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Universal Wire & Iron Co., Inc.  
Milwaukee, Wis.  
Vaughan Seed Store  
Chicago, Ill.

#### STERILIZERS—SOIL

Aeroil Burner Co., Inc.  
West New York, N. J.  
American Florist Supply Co.  
Chicago, Ill.  
Bayer-Semesan Co., Inc.  
Wilmington, Del.  
Carus Chemical Co.  
La Salle, Ill.  
Dow Chemical Co.  
Midland, Mich.  
Du Pont de Nemours & Co., Inc., E. I.  
Wilmington, Del.  
General Chemical Co.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Innis, Speiden & Co.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Wood Ridge Mfg. Co.  
Wood Ridge, N. J.  
Vaughan Seed Store  
Chicago, Ill.

#### STRAW MATS

Loewith, Inc., Julius  
New York, N. Y.

#### SULPHUR

Dow Chemical Co.  
Midland, Mich.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Protex Industries, Inc.  
New York, N. Y.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Summers Fertilizer Co., The  
Baltimore, Md.

#### SULPHUR DUST

American Florist Supply Co.  
Chicago, Ill.  
Goulard & Olena, Inc.  
New York, N. Y.  
Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
National Sulphur Co.  
New York, N. Y.

#### SUN DIALS

Lannon Quarries Corp.  
Beaver Dam, Wis.  
Testrite Instrument Co.  
New York, N. Y.  
Unadilla Silo Co.  
Unadilla, N. Y.  
Woodworking Specialty Co.  
Crystal Lake, Ill.

## SUPPLIES—HOT BED

American Bulb Co.  
Chicago, Ill.  
American Florist Supply Co.  
Chicago, Ill.  
Arvey Corp.  
Chicago, Ill.  
Keene Mfg. Co. (Electric)  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

## SUPPORTS—PLANT

American Florist Supply Co.  
Chicago, Ill.  
American Reedcraft Corp.  
New York, N. Y.  
Ball-Biddle Co.  
Riverton, N. J.  
Field & Co., Alfred (Vine)  
New York, N. Y.  
Germain Seed & Plant Co.  
Los Angeles, Calif.  
Goulard & Olena, Inc.  
New York, N. Y.  
Harris Mfg. Co., A. W.  
Sleepy Eye, Minn.  
Lansing Specialties Mfg. Co.  
Lansing, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio  
Loewith, Inc., Julius  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McHutchison & Co.  
New York, N. Y.  
Mauger, Louis S.  
Blackwood, N. J.  
Michigan Wire Goods Co.  
Niles, Mich.  
Star Expansion Bolt Co.  
New York, N. Y.  
Unadilla Silo Co., Inc.  
Unadilla, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

## TAGS—PLANT AND TREE

American Florist Supply Co.  
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Leonard & Son, A. M.  
Piqua, Ohio  
Goulard & Olena, Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
McFarland Organizations  
Harrisburg, Pa.  
Midwest Metal Specialties Co.  
Aurora, Ill.  
Morse Co., A. B.  
St. Joseph, Mich.  
Vaughan Seed Store  
Chicago, Ill.

## TAPE—NURSERY

American Florist Supply Co.  
Chicago, Ill.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Leonard & Son, A. M.  
Piqua, Ohio

## TAPES—TYING

Fricke Co., J. E.  
Philadelphia, Pa.  
Germain's Hotkaps Mfg. Div.  
Los Angeles, Cal.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

## TERMITE CHEMICALS

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St. Louis, Mo.  
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Goulard & Olena, Inc.  
New York, N. Y.  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Nott Mfg. Co.  
New York, N. Y.  
Protex Industries, Inc.  
New York, N. Y.

## TESTERS—SOIL

American Florist Supply Co.  
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Chicago, Ill.  
Edwards Laboratory  
Lansing, Mich.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Sudbury Soil Testing Laboratory  
South Sudbury, Mass.  
Urbana Laboratories, The  
Urbana, Ill.  
Vaughan Seed Store  
Chicago, Ill.

## THERMOMETERS

American Florist Supply Co.  
Chicago, Ill.  
Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.  
Lyon Electric Co.  
San Diego, Calif.

## TIES—PLANT

American Florist Supply Co.  
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Germain's Hotkap Mfg. Div.  
Los Angeles, Calif.  
Goulard & Olena, Inc.  
New York, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Vaughan Seed Store  
Chicago, Ill.

## TOBACCO POWDER

American Florist Supply Co.  
Chicago, Ill.  
California Spray Chemical Corp.  
Elizabeth, N. J.  
Goulard & Olena, Inc.  
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Hammond Paint & Chemical Co.  
Beacon, N. Y.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Mechling Bros. Chemicals  
Philadelphia, Pa.  
Nicotine Mfg. Co.  
St. Louis, Mo.  
Nicotine Production Corp.  
Clarksville, Tenn.  
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Vaughan Seed Store  
Chicago, Ill.

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Gardener's Friend Co.  
Orange, Mass.  
Garden Products Co.  
St. Louis, Mo.  
Gardex, Inc.  
Michigan City, Ind.  
Geyer Mfg. Co.  
Rock Falls, Ill.  
Gilson Co., J. E.  
Port Washington, Wis.  
G-L Products Co.  
Toledo, Ohio  
Goulard & Olena, Inc.  
New York, N. Y.  
Hudson Mfg. Co., H. D.  
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Racine, Wis.  
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Benton Harbor, Mich.  
Michigan Wire Goods Co.  
Niles, Mich.  
North Wayne Tool Co.  
Oakland, Maine  
Salta Corp.  
Jersey City, N. J.  
Schillinger & Sons, A.  
Tulsa, Okla.  
Thompson Co., William T. ("Vitamizer")  
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Union Fork & Hoe Co., The  
Columbus, Ohio  
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Chicago, Ill.

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Union Fork & Hoe Co., The  
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Case Co., J. I.  
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Cleveland Tractor Co.  
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Gravely Motor Plow & Cultivator Co.  
Dunbar, W. Va.  
International Harvester Co.  
Chicago, Ill.  
Massey-Harris Co.  
Racine, Wis.  
Shaw Mfg. Co.  
Galesburg, Kans.  
Schell, Inc., Walter S.  
Harrisburg, Pa.  
Utilitor Co., The  
Miamisburg, Ohio

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Toledo, Ohio

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Lewis Seed Co.  
Louisville, Ky.  
Masters Planter Co.  
Benton Harbor, Mich.  
Nagley Transplanter Co.  
Memphis, N. Y.  
New Idea, Inc.  
Coldwater, Ohio  
Planters Mfg. Co.  
Nashville, Tenn.

#### TRAPS—ANT

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Nott Mfg. Co.  
New York, N. Y.  
Vaughan Seed Store  
New York, N. Y.

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Grelle, C. E.  
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McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Macabee Gopher Trap Co.  
Los Gatos, Calif.  
Michigan Wire Goods Co.  
Niles, Mich.  
Vaughan Seed Store  
Chicago, Ill.

#### TREE FILLER

American Florist Supply Co.  
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Bartlett Mfg. Co.  
Detroit, Mich.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### TREE HOLDERS—CHRISTMAS

Campbell-Hausfeld Co., The  
Harrison, Ohio  
Chesmore Seed Co.  
St. Joseph, Mo.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### TREE MARKERS

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Bartlett Mfg. Co.  
Detroit, Mich.  
Midwest Metal Specialties Co.  
Aurora, Ill.  
Vaughan Seed Store  
Chicago, Ill.

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Bartlett Mfg. Co.  
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Hammond Paint & Chem. Co.  
Beacon, N. Y.  
Holmes Seed Co., The  
Canton, Ohio  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Protex Industries, Inc.  
New York, N. Y.

#### TREE PROTECTION

Aeroil Burner Co.  
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California Spray Chem. Co.  
Elizabeth, N. J.  
Dow Chemical Co.  
Midland, Mich.

Hammond Paint & Chemical Co.  
Beacon, N. Y.  
McCullough Seed Co., The J. Chas.  
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Paxton Products Co.  
Riverside, Calif.  
Protex Industries, Inc.  
New York, N. Y.

#### TREE PRUNING COMPOUND

American Florist Supply Co.  
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Bartlett Mfg. Co.  
Detroit, Mich.  
Garden Products Co.  
St. Louis, Mo.  
Hammond Paint & Chemical Co.  
Beacon, N. Y.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Oriental Seeds & Plants Co.  
San Francisco, Calif.  
Protex Industries, Inc.  
New York, N. Y.  
Vaughan Seed Store  
Chicago, Ill.

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Goulard & Olena, Inc.  
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Leonard & Son, A. M.  
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McCullough Seed Co., The J. Chas.  
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Bartlett Mfg. Co.  
Detroit, Mich.  
Gardex, Inc.  
Michigan City, Ind.  
Imperial Bit & Snap Co.  
Racine, Wis.  
Leonard & Son, A. M.  
Piqua, Ohio  
Union Fork & Hoe Co.  
Columbus, Ohio  
Vaughan Seed Store  
Chicago, Ill.

#### TROWELS

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American Florist Supply Co.  
Chicago, Ill.  
Field & Co., Alfred  
New York, N. Y.



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Goulard & Olena, Inc.  
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Johnson, Inc., Wm.  
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McCullough Seed Co., The J. Chas.  
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Pioneer Mfg. Co.  
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Leonard & Son, A. M.  
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Cincinnati, Ohio  
Shur-Gro Company  
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Scofield Mfg. Co.  
Cleveland, Ohio  
Sub-Ter-Rain Tool Co.  
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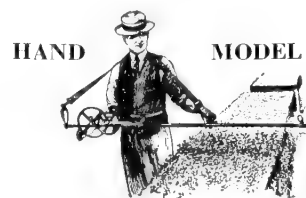
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Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
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Vaughan Seed Store  
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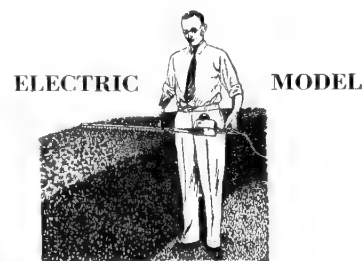
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Michigan City, Ind.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
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Cal. Spray-Chem. Corp.  
Elizabeth, N. J.  
Chipman Chem. Co., Inc.  
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Dobbins Mfg. Co.  
Elkhart, Ind.  
Dow Chemical Co.  
Midland, Mich.  
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Wilmington, Del.  
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Goulard & Olena, Inc.  
New York, N. Y.  
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Reade Mfg. Co.  
Jersey City, N. J.  
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Belleville, N. J.  
Scarlett & Co., William G.  
Baltimore, Md.  
Smith Agricultural Chemical Co., The  
Columbus, Ohio  
Summers Fertilizer Co., The  
Baltimore, Md.  
Vaughan Seed Store  
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Weed-Knell  
Aurora, Ill.

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Animal Trap Co. of America  
Lititz, Pa.  
Bartlett Mfg. Co.  
Detroit, Mich.  
Carter Products Co.  
Cleveland, Ohio  
Farquhar Co., Ltd., A. B.  
York, Pa.  
Gardener's Friend Co.  
Orange, Mass.  
Gardex, Inc.  
Michigan City, Ind.  
Gilson Co., J. E.  
Port Washington, Wis.  
Gogel Co., Walter A.  
Toledo, Ohio  
Hudson Mfg. Co., H. D.  
Chicago, Ill.

Imperial Bit & Snap Co.  
Racine, Wis.  
Johnson, Inc., Wm.  
Newark, N. J.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Michigan Wire Goods Co.  
Niles, Mich.  
Norcross & Sons, C. S.  
Bushnell, Ill.  
North Wayne Tool Co.  
Oakland, Me.  
Union Fork & Hoe Co., The  
Columbus, Ohio  
Vaughan Seed Store  
Chicago, Ill.  
Weed-Knell  
Aurora, Ill.

### WHEELBARROWS

American Florist Supply Co.  
Chicago, Ill.  
American Steel Scraper Co.  
Sidney, Ohio  
Fairbanks Co.  
New York, N. Y.  
Gardener's Friend Co.  
Orange, Mass.  
Jackson Mfg. Co.  
Harrisburg, Pa.  
Leonard & Son, A. M.  
Piqua, Ohio  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Thompson & Sons, O. E.  
Ypsilanti, Mich.  
Vaughan Seed Store  
Chicago, Ill.

### YARD FIGURES

Lannon Quarries Corp. (Metal)  
Beaver Dam, Wis.  
Western Stoneware Co.  
Monmouth, Ill.

# Equipment and Supplies

### ADV. FOR SEEDSMEN

Benton Review Shop  
Fowler, Ind.  
Bodger Seeds, Ltd.  
El Monte, Calif. (Electros, Koda-  
chromes, Nickeltypes, Photo-  
graphs, Transparencies)  
DeLaMare Co., Inc., A. T.  
New York, N. Y.  
Dow Chemical Co., T.  
Midland, Mich.  
Dubois Press, The  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
McFarland Publicity Service, The  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Litho. Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.  
Stoffel Seals Co.  
Chicago, Ill.  
Sweeney, Straub & Dimm,  
Spokane, Wash.  
Wallace-Homestead Co.  
Des Moines, Iowa

### ALFALFA MILLS

Hart-Carter Co.  
Minneapolis, Minn.

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.,  
St. Louis, Mo.  
Sedberry, Inc., J. B.  
Franklin, Tenn.

### ASPIRATORS—SEED CORN

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Superior Separator Co.  
Minneapolis, Minn.

### BAG CLEANERS

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.

### BAG CLOSING MACHINES

Bates Valve Bag Corp. (Wire Tie)  
New York, N. Y.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Savage Co., W. J.  
Knoxville, Tenn.

### BAG FILLING MACHINES

Brown Bag Filling Machine Co.  
Fitchburg, Mass.

Frazier & Son  
Belleville, N. J.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Richardson Scale Co.  
Clifton, N. J.  
Sidney Grain Machinery Co.  
Sidney, Ohio  
Stokes & Smith Co., The  
Philadelphia, Pa.

#### BAG HOLDERS

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Richardson Scale Co.  
Clifton, N. J.  
Seedburo Equipment Co.  
Chicago, Ill.  
Sprout, Waldron & Co.  
Muncy, Pa.

#### BAG PILERS—CONVEYORS

Farquhar, A. B., Co.  
York, Pa.  
Revolvator Co.  
North Bergen, N. J.

#### BAGS—CELLULOSE

Cupples-Hesse Envelope Co.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
Dow Chemical Co.  
Midland, Mich.

#### BAGS—COTTON OR BURLAP

Ames Bag Machine Co.  
Cleveland, Ohio  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Chase Bag Co.  
Chicago, Ill.  
Cincinnati Bag Co.  
(The J. Chas. McCullough Seed Co.)  
Cincinnati, Ohio  
Dickinson Co., The Albert  
Chicago, Ill.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Neahr & Co., M. J.  
Chicago, Ill.  
Progressive Bag Co.  
New Haven, Conn.  
Royal River Mills, Inc.  
Baltimore, Md.

#### BAG SEALS

Brooks, Co., E. J.  
Newark, N. J.  
Seedburo Equipment Co.  
Chicago, Ill.  
Stoffel Seals Co.  
Chicago, Ill.

#### BAGS—FRUIT PICKER

Cyclone Seeder Co., Inc., The  
Urbana, Ind.

#### BAGS—PAPER

Bates Valve Bag Corp.  
New York, N. Y.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Chase Bag Co.  
Chicago, Ill.  
Disbrow Mfg. Co. (Satchel Bottom  
Bags and Packets)  
Newark, N. J.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
Miller, Tompkins & Co.  
East Rutherford, N. J.

Neahr & Co., M. J.  
Chicago, Ill.  
Page Seed Co., The  
Greene, N. Y.  
Wolf Brothers  
Philadelphia, Pa.

#### BAGS—SEAMLESS "A"

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Chase Bag Co.  
Chicago, Ill.  
Dickinson Co., The Albert  
Chicago, Ill.  
Cincinnati Bag Co.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Royal River Mills  
Baltimore, Md.

#### BAGS—WATERPROOF

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Chase Bag Co.  
Chicago, Ill.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

#### BAG STITCHING MACHINES

Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Savage Co., W. J.  
Knoxville, Tenn.  
Union Special Machine Co.  
Chicago, Ill.

#### BELTING

Goodrich Rubber Co., B. F.  
Diamond Mechanical Goods Div.  
Akron, Ohio

#### BURLAP—NURSERY

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.

#### CANS—FIBRE AND TIN

American Can Co.  
Chicago, New York & San Francisco  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Seedburo Equipment Co.  
Chicago, Ill.  
Sefton Nat'l Fibre Can Co.  
Chicago, Ill.

#### CANVAS COVERS

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Chase Bag Co.  
Chicago, Ill.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.

#### CARTONS—LITHOGRAPHED

Schmidt Litho. Co.  
San Francisco, Calif.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.

#### CARTONS—PAPER

Bird & Son  
East Walpole, Mass.  
Container Corp. of America  
Chicago, Ill.  
Disbrow Mfg. Co. (Corrugated)  
Newark, N. J.  
Du Bois Press  
Rochester, N. Y.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Weaver Mailing Env. & Box Co.  
Philadelphia, Pa.

#### CARTONS—PRINTED

Disbrow Mfg. Co.  
Newark, N. J.  
Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Schmidt Lithograph Co.  
San Francisco, Cal.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.

#### CATALOG COLORED COVERS

Benton Review Shop  
Fowler, Ind.  
DuBois Press, The  
Rochester, N. Y.  
Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
Hart Publications, Inc.  
Minneapolis, Minn.  
McFarland Co., J. Horace  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.  
Sweeney, Straub & Dimm,  
Spokane, Wash.  
Wallace-Homestead Co.  
Des Moines, Iowa

#### CATALOG ENVELOPES

American Paper Goods Co., The  
Chicago, Ill.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Cupples-Hesse Corp.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
Heco Envelope Co.  
Chicago, Ill.  
Outlook Envelope Co.  
Chicago, Ill.

#### CATALOG ILLUSTRATIONS

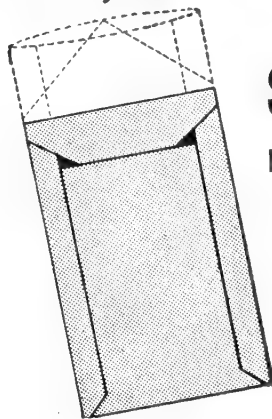
DuBois Press  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
McFarland Co., J. Horace  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Rochester Horticultural Studios  
Rochester, N. Y.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Sweeney, Straub & Dimm  
Spokane, Wash.

#### CATALOG PRINTERS

Benton Review Shop  
(Stock Seed Catalogs)  
Fowler, Ind.  
Byrd Press, Inc., The Wm.  
Richmond, Va.  
DeLaMare Co., Inc., A. T.  
New York, N. Y.  
DuBois Press, The  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
Hart Publications, Inc.  
Minneapolis, Minn.  
McFarland Co., J. Horace  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Sweeney, Straub & Dimm (Stock Seed

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### IN SPEAR ENVELOPES

They are strong, secure, non-sifting. Can be had plain or printed.

Sizes from 3 x 4½ to 7 x 11½.

These envelopes must be seen to appreciate their outstanding features.

Send for free samples. We also manufacture catalog and commercial envelopes and letterheads.

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Manufacturer

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✓ ENVELOPES

✓ TAGS

✓ SEED BAGS

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AND PRICES . . .

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SAINT LOUIS, MO.



Catalog)  
Portland, Ore.  
Wallace- Homestead Co.  
Des Moines, Iowa

### CEMENT—CANVAS

Albrecht & Co.  
Rowayton, Conn.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Donley & Bro., J. L.  
Ashland, Ohio  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
Val-A Company  
Chicago, Ill.

### CLEANERS—GRAIN AND SEED

American Grain Separator Co.  
Minneapolis, Minn.  
Cleland Mfg. Co.  
Minneapolis, Minn.  
Clute Elevator Co.  
Rocky Ford, Colo.  
Crippen Mfg. Co.  
Alma, Mich.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Hart-Carter Company  
Minneapolis, Minn.  
Huntley Mfg. Co.  
Brocton, N. Y.  
Majestic Huller & Mfg. Co.  
Minneapolis, Minn.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Rice Seed Co., W. A.  
Jerseyville, Ill.  
Sidney Grain Machinery Co.  
Sidney, Ohio  
Sprout Waldron & Co.  
Muncy, Pa.  
Superior Separator Co.  
Minneapolis, Minn.  
Sutton, Steele & Steele, Inc.  
Dallas, Texas

### CLEANERS AND GRADERS— CRACKED CORN

Cleland Mfg. Co.  
Minneapolis, Minn.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Majestic Huller & Mfg. Co.  
Minneapolis, Minn.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Superior Separator Co.  
Minneapolis, Minn.

### COLOR REPRODUCTIONS

Burpee Co., W. Atlee  
Philadelphia, Pa.  
Du Bois Press, The  
Rochester, N. Y.  
Genesee Valley Litho. Co.  
Rochester, N. Y.  
McFarland Co., J. Horace  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Litho. Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.  
Sweeney, Straub & Dimm  
Portland, Ore.

### COMPOST MAKERS

American Florists Supply Co.  
Chicago, Ill.  
Salem Tool Co.  
Salem, Ohio

W-W Grinder Corp.  
Wichita, Kans.

### CORN CRACKERS

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Sedberry, Inc., J. B.  
Franklin, Tenn.

### COUNTERS—STORE

Heller & Co.  
Montpelier, Ohio

### CRUSHERS

Sedberry, Inc., J. B. (Oat)  
Franklin, Tenn.  
Straub Co.  
Philadelphia, Pa.

### DISPLAY RACKS—SEED PACKET

Burpee Co., W. Atlee  
Philadelphia, Pa.  
Davis Metal Fixture Co.  
Lansing, Mich.  
Hamilton Mfg. Co.  
Two Rivers, Wis.  
Heller & Co.  
Montpelier, Ohio  
Narragansett Machine Co.  
Pawtucket, R. I.  
Union Steel Products Co.  
Albion, Mich.  
Walkerbilt  
Penn Yan, N. Y.  
Worcester Wire Novelty Co., Inc.  
Baltimore, Md.

### DISPLAYS—ILLUMINATED

Badger Seeds, Ltd.  
El Monte, Calif.  
Rochester Horticultural Studios  
Rochester, N. Y.

### DOCKAGE TESTERS

Hart-Carter Co.  
Minneapolis, Minn.  
Seedburo Equipment Co.  
Chicago, Ill.

### DRIERS—SEED

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Randolph Co., O. W.  
Toledo, Ohio

### DUST COLLECTORS

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Huntley Mfg. Co.  
Brocton, N. Y.  
Ideal Commutator Dresser Co.  
Sycamore, Ill.

### DUST PROTECTORS

Garnett, Herbert (Respirators)  
Maumee, Ohio  
Seedburo Equipment Co.  
Chicago, Ill.

### ELECTROTYPES OF FLOWERS

Bodger Seeds, Ltd.  
El Monte, Calif.  
Morse Co., A. B.  
St. Joseph, Mich.

### ELEVATORS—AIR-LIFT

Oliver Mfg. Co.  
St. Louis, Mo.

### ELEVATOR—ELECTRIC

Davis & Newcomer Electric Elev. Co.  
Fostoria, Ohio  
Farquhar Co., A. B.  
Troy, Pa.

### ENVELOPES

American Paper Goods Co.  
Chicago, Ill.  
Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co., The  
Fitchburg, Mass.  
Cupples-Hesse Corp.  
St. Louis, Mo.

Disbrow Mfg. Co.  
Newark, N. J.  
Heco Envelope Co.  
Chicago, Ill.  
Heinrich Envelope Co.  
Minneapolis, Minn.  
Miller, Tompkins & Co.  
East Rutherford, N. J.  
Outlook Envelope Co.  
Chicago, Ill.  
Tension Envelope Co.  
Brooklyn, N. Y.  
Weaver Mailing Envelope & Box Co.  
Philadelphia, Pa.  
Wolf Brothers  
Philadelphia, Pa.

#### ENVELOPE SEALERS

Arnold, Schuyler  
Coldwater, N. Y.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Ferguson Co., J. L. (Carton)  
Joliet, Ill.  
Stokes & Smith Co., The  
Philadelphia, Pa.  
Wright-Dalton Machine Co.  
Durham, N. C.

#### FANNING MILLS

American Grain Separator Co.  
Minneapolis, Minn.  
Cleland Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Lewis Seed Co.  
Louisville, Ky.  
Rice Seed Co., W. A.  
Jerseyville, Ill.  
Sidney Grain Machinery Co.  
Sidney, Ohio

#### FARM IMPLEMENTS

Allen & Co., Inc., S. L.  
Philadelphia, Pa.  
American Grain Separator Co.  
Minneapolis, Minn.  
Ariens Co.  
Brillion, Wis.  
Case Co., J. I.  
Racine, Wis.  
Hance Mfg. Co., J. W.  
Westerville, Ohio

#### FIELD WAREHOUSING

Banks, Inc., Wm. H.  
Chicago, Ill.  
Douglas-Guardian Warehouse Corp.  
Chicago, Ill.

#### FINANCING

Douglas-Guardian Warehouse Corp.  
Chicago, Ill.

#### FUMIGATION

(See Fumigants Under Resale  
Merchandise)

#### GERMINATORS

Bridges Mfg. Co.  
Bedford, Iowa  
Herbst Bros.  
New York, N. Y.  
Keene Mfg. Co.  
Racine, Wis.  
Seedburo Equipment Co.  
Chicago, Ill.  
Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Corp.  
New York, N. Y.

#### GRADERS—BEAN

Ferrell & Co., A. T.  
Saginaw, W. S., Mich.

Hance Mfg. Co., J. W.  
Westerville, Ohio  
Hart-Carter Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.

#### GRADERS—CORN

Auto Compressor Co.  
Wilmington, Ohio  
Cleland Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, W. S., Mich.  
Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Hart-Carter Co.  
Minneapolis, Minn.  
Hogmoe Mfg. Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Majestic Huller & Mfg. Co.  
Minneapolis, Minn.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Superior Separator Co.  
Minneapolis, Minn.  
Sutton, Steele & Steele, Inc.  
Dallas, Texas

#### GRAIN MILLS

Ferrell & Co., A. T.  
Saginaw, Mich.  
Hart-Carter Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.

#### GRAIN AND SEED TREATING EQUIPMENT

Bayer-Semesan Co., Inc.  
Wilmington, Del.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Seedburo Equipment Co.  
Chicago, Ill.

#### GREENHOUSES

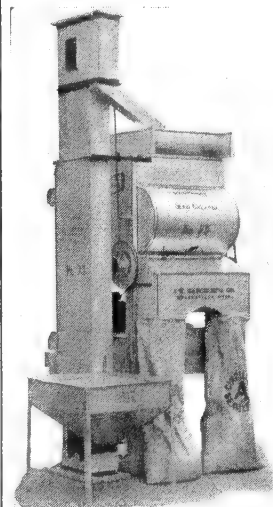
American-Moninger Greenhouse Mfg.  
Co.  
Brooklyn, N. Y.  
Foley Greenhouse Mfg. Co.  
Forest Park, Ill.  
Lord & Burnham Co.  
Irvington, N. Y.  
Metropolitan Greenhouse Mfg. Corp.  
Brooklyn, N. Y.  
Yoho & Hooker  
Youngstown, Ohio

#### GRINDERS—FEED

Anglo-American Mill Co.  
Owensboro, Ky.  
Case Co., J. I.  
Racine, Wis.  
Fairbanks, Morse & Co.  
Chicago, Ill.  
Hogmoe Mfg. Co.  
Minneapolis, Minn.  
Patch, Inc., A. H.  
Clarksville, Tenn.  
Sedberry, Inc., J. B.  
Franklin, Tenn.  
Straub Co.  
Philadelphia, Pa.  
W-W Grinder Corp.  
Wichita, Kans.

## SEED CLEANERS

### *The Vac-A-Way*



#### CUSTOM SIZE

Available with  
optional equip-  
ment includ-  
ing elevator  
and hopper.

#### FARM SIZE

Easily changed  
from hand  
power to elec-  
tric drive or  
gasoline or  
motor.

#### SCREENS

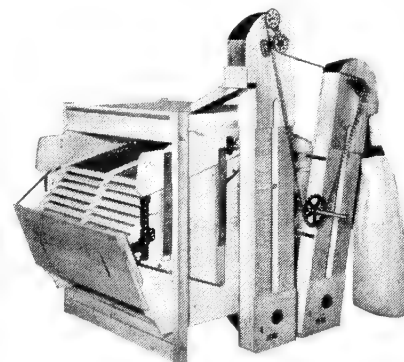
Perforated plates and woven wire screens  
in stock for special seed cleaning require-  
ments.

*Write for Information and Prices!*

**J. W. HANCE MFG. CO.**

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OHIO



### **The Warehouse Seed Cleaner**

Designed for general seed cleaning or  
seed receiving separator. Accurate  
weight grading. Efficient screening.  
Large capacity. Very light running.  
Low priced.

#### **Expert Rehuller and Scarifier**

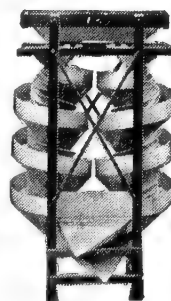
Rehulls and scarifies any kind of seed  
with maximum capacity and efficiency.

#### **The Krussow Double Spiral**

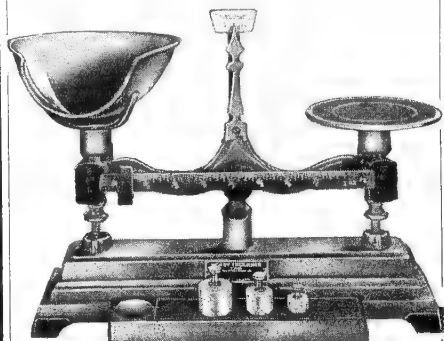
For separating  
round seeds from  
flat or irregular  
seeds. Largest  
capacity—highest  
efficiency.

• Also mfg. corn  
graders and grain  
cleaners.

**CLELAND**  
MANUFACTURING CO.  
2800 Washington Ave. N.  
Minneapolis, Minn.







No. 7857 SCALE

## Henry Troemner

*Manufacturer*

**Fine Balances, Scales,  
Weights for Testing  
and Grading of Seed,  
Grain, etc.**

Sensitive to 1/128 ounce

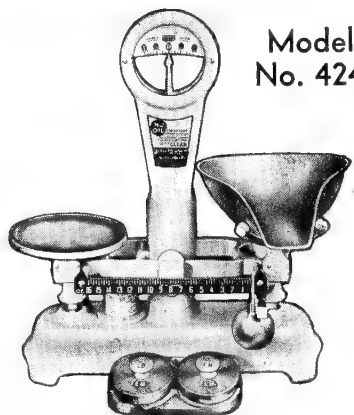
*Many Types for Many Uses*

EST. 1840

CIRCULAR "S"

911 ARCH ST. PHILA., PA.

## DETECTO-GRAM Seed Scale Stops Losses Speeds Packaging



Model  
No. 424

**Shows** slightest overweight.  
Wide travel indicator shows frac-  
tion of an ounce clearly. Save  
time and money with one of many  
Detecto-Gram scales. Write now  
for complete information.

## DETECTO-GRAM SCALES

div. of Detecto Scales, Inc.  
Scale Makers Since 1900

Representatives in all principal cities

**3 MAIN ST., BROOKLYN, N. Y.**

### HAMMER MILLS

Case Co., J. I.  
Racine, Wis.  
Sedberry, Inc., J. B.  
Franklin, Tenn.

### HORTICULTURAL ADVERTISING

Dow Chemical Co.  
Midland, Mich.  
Hall Printing Co., W. F.  
Chicago, Ill.  
McFarland Publicity Service  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.

### HORTICULTURAL COLOUR CHART

Bodger Seeds, Ltd.  
El Monte, Calif.

### HORTICULTURAL PRINTING

Du Bois Press, The  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
Hart Publications, Inc.  
Minneapolis, Minn.  
McFarland Organizations  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Sweeney, Straub & Dimm  
Portland, Ore.

### HULLERS

American Grain Separator Co.  
Minneapolis, Minn.  
Cleland Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Hart-Carter Company  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Majestic Huller & Mfg. Co.  
Minneapolis, Minn.  
Superior Separator Co.  
Minneapolis, Minn.

### INVENTORY WAREHOUSING

Douglas-Guardian Warehouse Corp.  
Chicago, Ill.

### KODACHROMES

Bodger Seeds, Ltd.  
El Monte, Calif.

### LABELS

Du Bois Press, The  
Rochester, N. Y.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.  
Stoffel Seals Co.  
Chicago, Ill.

### LABELS—CAN

Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.

### LABELS AND HANGERS—BOX

Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Litho. Co.  
San Francisco, Calif.  
Stecher-Traung Litho. Corp.  
Rochester, N. Y.

### LABORATORY EQUIPMENT

Heller & Co.  
Montpelier, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.  
Specialty Mfg. Co.  
St. Paul, Minn.  
Standard Scientific Supply Co.  
New York, N. Y.  
Straub Co.  
Philadelphia, Pa.  
Torsion Balance Co.  
New York, N. Y.  
Troemner, Henry  
Philadelphia, Pa.

### MAILING ENVELOPES

American Paper Goods Co., The  
Chicago, Ill.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Disbrow Mfg. Co.  
Newark, N. J.  
Outlook Envelope Co.  
Chicago, Ill.

### MICE—PROOF SEED CASES

Heller & Co.  
Montpelier, Ohio

### MIXERS—MOLASSES

Sedberry, Inc., J. B.  
Franklin, Tenn.

### MOISTURE TESTERS

Seedburo Equipment Co.  
Chicago, Ill.

### NICKELTYPES

Bodger Seeds, Ltd.  
El Monte, Calif.  
Morse Co., A. B.  
St. Joseph, Mich.

### NOVELTY MAILING ENVELOPES

American Paper Goods Co.  
Chicago, Ill.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Disbrow Mfg. Co.  
Newark, N. J.

### OAT CRUSHERS

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Sedberry, Inc., J. B.  
Franklin, Tenn.

### PACKAGING MACHINERY— FEED

Frazier & Son  
Belleville, N. J.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Huntley Mfg. Co.  
Brocton, N. Y.  
Richardson Scale Co.  
Clifton, N. J.

### PACKAGING SCALES

Detecto Scales, Inc.  
Brooklyn, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.  
Troemner, Henry  
Philadelphia, Pa.

### PACKET FILLING

Brown Bag Filling Machine Co., The  
Fitchburg, Mass.  
Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Wright-Dalton Machine Co.  
Durham, N. C.

#### PACKET FILLING MACHINES

Brown Bag Filling Machine Co., The  
Fitchburg, Mass.  
Consolidated Packaging Machinery  
Corp.  
Buffalo, N. Y.  
Exact Weight Scale Co.  
Columbus, Ohio  
Ferguson Co., J. L.  
Joliet, Ill.  
Frazier & Son  
Belleville, N. J.  
Triner Sales Co.  
Chicago, Ill.  
Wright-Dalton Machine Co.  
Durham, N. C.

#### PACKETS—SEED

American Paper Goods Co., The  
Chicago, Ill.  
Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co., The  
Fitchburg, Mass.  
Cupples-Hesse Corp.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
Genesee Valley Lithograph Co.  
Rochester, N. Y.  
Heinrich Envelope Co.  
Minneapolis, Minn.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.

#### PAPER—CATALOG

American Paper Goods Co.  
Chicago, Ill.  
Collins Co., A. M.  
Philadelphia, Pa.

Consolidated Water Power & Paper Co.  
Chicago, Ill.

#### PAPER—WRAPPING

American Florists Supply Co.  
Chicago, Ill.  
Disbrow Mfg. Co.  
Newark, N. J.

#### PERFORATED METAL FOR SCREENS

Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.

#### PHOTOGRAPHS—CATALOG

Associated Seed Growers, Inc.  
New Haven, Conn.  
Bodger Seeds, Ltd.  
El Monte, Calif.  
Burpee Co., W. Atlee  
Philadelphia, Pa.  
Macdonald Seed Co., The Wm.  
Santa Maria, Calif.  
Morse Co., A. B.  
St. Joseph, Mich.  
Waller-Franklin Seed Co.  
Guadalupe, Calif.

#### PICKERS—BEAN

Crippen Mfg. Co.  
Alma, Mich.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Hart-Carter Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.

Huntley Mfg. Co.  
Brocton, N. Y.

#### POLISHERS—SEED

Crippen Mfg. Co. (Bean)  
Alma, Mich.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.

#### PORTABLE MILLS

Sedberry, Inc., J. B.  
Franklin, Tenn.

#### POULTRY FEED MACHINERY

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Sedberry, Inc., J. B.  
Franklin, Tenn.

#### PRINTERS—CATALOG

Du Bois Press, The  
Rochester, N. Y.  
Hall Printing Co., W. F.  
Chicago, Ill.  
Hart Publications, Inc.  
Minneapolis, Minn.  
McFarland Organizations  
Harrisburg, Pa.  
Morse Co., A. B.  
St. Joseph, Mich.  
Schmidt Lithograph Co.  
San Francisco, Calif.  
Sweeney, Straub & Dimm  
Portland, Ore.

#### RUBBER STAMPS AND INK

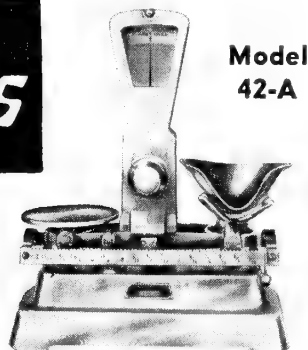
Perma Tag Co.  
Grand Rapids, Mich.  
Winters Stamp Mfg. Co., Austin P.  
Summit, N. J.

## Exact Weight Scales

### Helping the **SEEDMAN** Package the goods . . .

New and improved high speed EXACT WEIGHT Scales are available to handle every seed operation in the industry. You have a choice of many models of different capacities and for different uses. Model 42-A (illustrated) is the most popular model with seedsmen for over-the-counter sales of expensive flower seeds. For packaging garden seeds they buy Model 8006 (also illustrated) for accurate weights and profitable sales. Both these models, popular from coast to coast, have speed . . . are especially designed for seed operations . . . are extremely accurate. Remember it takes a real scale to sell seed from bulk at a profit.

**Write for our complete 1942  
illustrated seed scale catalog  
—do it before the busy season  
opens.**



Model  
42-A

EXACT WEIGHT Scale Model 42-A. Recommended for over-the-counter sales of expensive and costly flower seed, or packaging flower seeds. Equipped with open scoop. Accurate to 1/100 oz. Capacity to 1 lb.

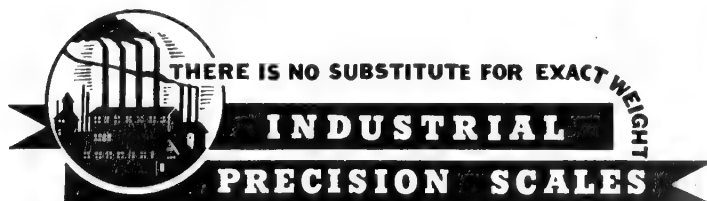


Model  
8006

EXACT WEIGHT Scale Model 8006. Recommended for packaging garden seeds or large orders of flower seeds. Nile blue or white as preferred. Equipped with funnel scoop. Accurate to 1/8 oz. Capacity to 12 lbs.

## The Exact Weight Scale Company

18 W. Fifth Ave., Columbus, Ohio



#### SAMPLE BAGS

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.

#### SAMPLE CASES

Hamilton Mfg. Co.  
Two Rivers, Wis.  
Heller & Co.  
Montpelier, Ohio  
Knickerbocker Case Co.  
Chicago, Ill.  
Seedburo Equipment Co.  
Chicago, Ill.

#### SAMPLE ENVELOPES—SEED

American Paper Goods Co.  
Chicago, Ill.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Berkowitz Envelope Co.  
Kansas City, Mo.  
Brown Bag Filling Machine Co.  
Fitchburg, Mass.  
Cupples-Hesse Corp.  
St. Louis, Mo.  
Disbrow Mfg. Co., Inc.  
Newark, N. J.  
Heco Envelope Co.  
Chicago, Ill.  
Heinrich Envelope Co.  
Minneapolis, Minn.  
Miller, Tompkins & Co.  
East Rutherford, N. J.  
Stecher-Traung Lithograph Corp.  
Rochester, N. Y.  
Weaver Mailing Envelope & Box Co.  
Philadelphia, Pa.

#### SAMPLE PANS

Seedburo Equipment Co.  
Chicago, Ill.

#### SCALE COVERS—CANVAS

Bemis Bro. Bag Co.  
St. Louis, Mo.

#### SCALES—AUTOMATIC

Detecto Scales, Inc.  
Brooklyn, N. Y.  
Exact Weight Scale Co., The  
Columbus, Ohio  
Fairbanks, Morse & Co.  
Chicago, Ill.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Richardson Scale Co.  
Clifton, N. J.  
Toledo Scale Co.  
Toledo, Ohio  
Torsion Balance Co.  
New York, N. Y.  
Troemner, Henry  
Philadelphia, Pa.

#### SCALES—COUNTER OR PLAT- FORM

Detecto Scales, Inc.  
Brooklyn, N. Y.  
Exact Weight Scale Co., The  
Columbus, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Ralston Scale Co.  
Columbus, Ohio  
Seedburo Equipment Co.  
Chicago, Ill.  
Toledo Scale Co.  
Toledo, Ohio  
Torsion Balance Co.  
New York, N. Y.  
Triner Sales Co.  
Chicago, Ill.  
Troemner, Henry  
Philadelphia, Pa.

#### SCALES—LABORATORY

Detecto Scales, Inc.  
Brooklyn, N. Y.  
Exact Weight Scale Co., The  
Columbus, Ohio  
Seedburo Equipment Co.  
Chicago, Ill.  
Standard Scientific Supply Corp.  
New York, N. Y.  
Torsion Balance Co.  
New York, N. Y.  
Troemner, Henry  
Philadelphia, Pa.

#### SCARIFIERS

Allis-Chalmers Mfg. Co.  
Milwaukee, Wis.  
American Grain Separator Co.  
Minneapolis, Minn.  
Cleland Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Majestic Huller & Mfg. Co.  
Minneapolis, Minn.  
Savage Co., W. J.  
Knoxville, Tenn.  
Superior Separator Co.  
Minneapolis, Minn.

#### SCOOPS

Detecto Scales, Inc.  
Brooklyn, N. Y.  
Michigan Wire Goods Co. (Wire)  
(Potato, Corn, Apple)  
Niles, Mich.  
Seedburo Equipment Co.  
Chicago, Ill.  
Troemner, Henry  
Philadelphia, Pa.  
Union Fork & Hoe Co., The  
Columbus, Ohio

#### SCREENS

Cleland Mfg. Co.  
Minneapolis, Minn.  
Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Huntley Mfg. Co.  
Brocton, N. Y.  
Lewis Seed Co.  
Louisville, Ky.  
Oliver Mfg. Co. (Anti-Gravity)  
St. Louis, Mo.  
Seedburo Equipment Co.  
Chicago, Ill.  
Sutton, Steele & Steele, Inc.  
Dallas, Texas

#### SEALS

American Casting & Mfg. Corp.  
Brooklyn, N. Y.  
Bates Valve Bag Corp. (Wire Tie)  
New York, N. Y.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Brooks Co., E. J.  
Newark, N. J.  
Porter Safety Seal Co.  
Chicago, Ill.  
Protecto-Seal Co.  
Orchard Park, N. Y.

#### SEED BINS

Heller & Co.  
Montpelier, Ohio

#### SEED CASES

Davis Metal Fixture Co.  
Lansing, Mich.  
Heller & Co.  
Montpelier, Ohio

#### SEED CORN GRADERS (ROTARY)

Hance Mfg. Co., J. W.  
Westerville, Ohio

#### SEED EXTRACTORS—SPIRAL

Cleland Mfg. Co.  
Minneapolis, Minn.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.

#### SEED MEASURING CUPS

Condon Bros. Seedsmen  
Rockford, Ill.  
Seedburo Equipment Co.  
Chicago, Ill.

#### SEED PACKETS—KRAFT

American Paper Goods Co., The  
Chicago, Ill.  
Brown Bag Filling Machine Co., The  
Fitchburg, Mass.  
Cupples Hesse Corp.  
St. Louis, Mo.  
Disbrow Mfg. Co.  
Newark, N. J.

#### SEED SEPARATORS

Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Hart-Carter Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Rice Seed Co., W. A.  
Jerseyville, Ill.  
Superior Separator Co.  
Minneapolis, Minn.

#### SEED SIEVES

Ferrell & Co., A. T.  
Saginaw, Mich.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.

#### SEED TESTING—COMMERCIAL

Commercial Seed Laboratory  
Washington, D. C., and Toledo, Ohio  
International Seed, Inc.  
New York, N. Y.  
Standard Reference Laboratory  
Ames, Iowa  
Montgomery Seed Laboratory  
Montgomery, Ala.  
National Seed Laboratory  
Toledo, Ohio  
Ransom Seed Laboratory  
Los Angeles, Calif.

#### SEED TESTING EQUIPMENT

Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.

#### SEED TREATER

American Grain Separator Co.  
Minneapolis, Minn.  
Ben Gustafson Seed Grain Machinery  
Co.  
Fargo, N. Dak.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Oliver Mfg. Co.  
St. Louis, Mo.  
Seedburo Equipment Co.  
Chicago, Ill.

### SEED TREATING EQUIPMENT

Bayer-Semesan Co., Inc.  
Wilmington, Dela.  
Hance Mfg. Co., J. W.  
Westerville, Ohio  
Oliver Mfg. Co.  
St. Louis, Mo.  
Seedburo Equipment Co.  
Chicago, Ill.

### SEED TRIERS

Seedburo Equipment Co.  
Chicago, Ill.

### SEPARATORS—GRAVITY

Hance Mfg. Co., J. W.  
Westerville, Ohio  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Oliver Mfg. Co.  
St. Louis, Mo.  
Sutton, Steele & Steele, Inc.  
Dallas, Texas

### SEWING MACHINES—BAG

Union Special Machine Co.  
Chicago, Ill.

### SHAKING SHOES

Oliver Mfg. Co.  
St. Louis, Mo.

### SHEETING AND BURLAP FOR SHADE

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.

### SHELLERS—CORN

Hamilton Seed & Coal Co.  
Cedar Rapids, Iowa  
Hart-Carter Co.  
Minneapolis, Minn.  
Howes Co., Inc., S.  
Silver Creek, N. Y.  
Messinger Mfg. Co.  
Tatamy, Pa.

### SIEVE DRIVES

Howes Co., Inc., S.  
Silver Creek, N. Y.

### SORTERS—BEET SEED

Ferrell & Co., A. T.  
Saginaw, Mich.

### SORTERS—CORN

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Universal Hoist & Mfg. Co.  
Cedar Falls, Iowa

### STORE FIXTURES

Davis Metal Fixtures Co.  
Lansing, Mich.  
Heller & Co.  
Montpelier, Ohio  
Narragansett Machine Co.  
Pawtucket, R. I.  
National Cash Register Co.  
Dayton, Ohio  
Stackbin Corp.  
Providence, R. I.  
Walkerbilt  
Penn Yan, N. Y.

### TABLES—BEAN HAND PICKING

Crippen Mfg. Co.  
Alma, Mich.  
Ferrell & Co., A. T. (Hand and Power)  
Saginaw, Mich.

### TAGS—SHIPPING

American Florists Supply Co.  
Chicago, Ill.  
Benton Review Shop  
Fowler, Ind.  
Campbell Box & Tag Co.  
South Bend, Ind.  
Central Tag Co.  
Chicago, Ill.

Cupples-Hesse Corp.  
St. Louis, Mo.  
Dennison Mfg. Co.  
Framingham, Mass.  
Disbrow Mfg. Co.  
Newark, N. J.  
Morse Co., A. B.  
St. Joseph, Mich.  
Perma Tag Co.  
Grand Rapids, Mich.

### TARPAULINS

Bemis Bro. Bag Co.  
St. Louis, Mo.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.

### TESTERS—SEED CORN

Howes Co., Inc., S.  
Silver Creek, N. Y.  
Seedburo Equipment Co.  
Chicago, Ill.  
Specialty Mfg. Co.  
St. Paul, Minn.

### THERMOSTATS AND WAFERS

Brower Mfg. Co.  
Quincy, Ill.  
Cyclone Mfg. Co.  
Urbana, Ind.  
Hudson Mfg. Co., H. D.  
Chicago, Ill.

Lyon Electric Co.  
San Diego, Calif.

National Ideal Co.  
Toledo, Ohio

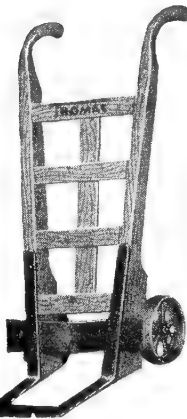
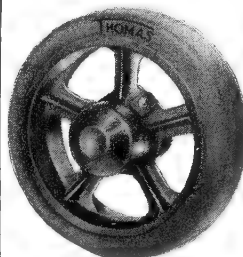
### THRESHERS—SEED

Allis-Chalmers Mfg. Co.  
Milwaukee, Wis.  
American Grain Separator Co.  
Minneapolis, Minn.  
Caledonia Bean Harvester Works  
Caledonia, N. Y.

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Mold-on rubber wheels. Easy rolling, tough but resilient. Guaranteed to adhere to casting without stretch or separation within rated capacity. Write.

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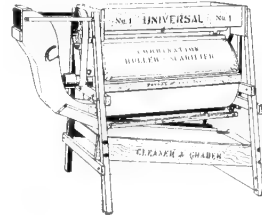
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## HULLER - SCARIFIER CLEANER



A machine built especially for Seed Growers, Seed Houses. This machine will Hull, Scarify and Clean,

Alfalfa, Sweet Clover, Crotalaria, Lespedeza, Bermuda Seed, etc. Save your present losses which can now be avoided by owning one of these machines which will pay for itself many times each season.

WRITE FOR DESCRIPTIVE LITERATURE AND PRICES

## American Grain Separator Company

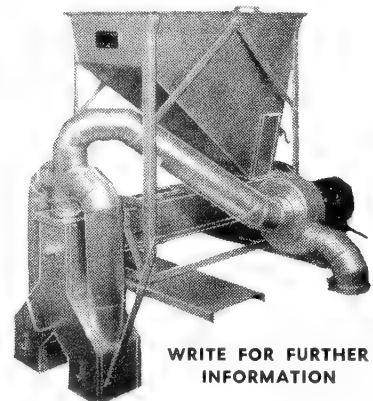
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MINNESOTA

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*Thoroughly — Conveniently — Economically — Rapidly*  
with the **GUSTAFSON SEED GRAIN TREATER**

Capacity 50 to 400 bu. per hr. Height 30 in., length 40 in., width 26 in. Weight 200 lbs. Equipped with motor or gas engine.



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Howes, Co., Inc., S.  
Silver Creek, N. Y.  
International Harvester Co.  
Chicago, Ill.  
Messinger Mfg. Co.  
Tatamy, Pa.  
Koger Pea & Bean Thresher Co.  
Morristown, Tenn.  
Pioneer Thresher Co.  
Shortsville, N. Y.

#### TILLERS

Ariens Co.  
Brillion, Wis.

#### TRANSPARENCIES

Bodger Seeds, Ltd.  
El Monte, Calif.

#### TREE BANDS

Bemis Bro. Bag Co.  
St. Louis, Mo.

#### TRIERS—BAG OR CAR

Seedbuero Equipment Co.  
Chicago, Ill.

#### TRUCKS—WAREHOUSE

American Florists Supply Co.  
Chicago, Ill.  
Fairbanks Company  
New York, N. Y.

Nutting Truck Co.  
Faribault, Minn.  
Revolvator Co.  
North Bergen, N. J.  
Seedbuero Equipment Co.  
Chicago, Ill.  
Steubing Truck Co.  
Cincinnati, Ohio  
Thomas Truck & Caster Co.  
Keokuk, Iowa

#### TWINE—BAG CLOSING

American Florist Supply Co.  
Chicago, Ill.  
Bemis Bro. Bag Co.  
St. Louis, Mo.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
Lewis Seed Co.  
Louisville, Ky.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio  
Royal River Mills  
Baltimore, Md.

#### TWINE—BINDER & WRAPPING

American Florist Supply Co.  
Chicago, Ill.  
Fricke Co., J. E.  
Philadelphia, Pa.  
Fulton Bag & Cotton Mills  
Atlanta, Ga.  
International Harvester Co.  
Chicago, Ill.  
McCullough Seed Co., The J. Chas.  
Cincinnati, Ohio

**WAREHOUSING—FIELD**  
Douglas-Guardian Warehouse Corp.  
Chicago, Ill.

#### TYING MACHINES

Bunn Co., B. H. (Package Tying  
Machines)  
Chicago, Ill.  
Felins Tying Machine Co.  
Milwaukee, Wis.  
Tie Company, The  
Unadilla, N. Y.

#### WEEVIL KILLER

Agricultural Laboratories, Inc.  
Columbus, Ohio  
Calif. Spray Chem. Corp.  
Elizabeth, N. J.  
Douglas Chemical & Supply Co.  
Kansas City, Mo.  
Innis, Speiden & Co.  
New York, N. Y.  
Seedbuero Equipment Co.  
Chicago, Ill.

#### WEIGHTS—TEST

Exact Weight Scale Co., The  
Columbus, Ohio  
Seedbuero Equipment Co.  
Chicago, Ill.

#### WRAPPING MACHINES—AUTO-MATIC

American Machinery & Foundry Co.  
Brooklyn, N. Y.  
Ferguson Co., J. L.  
Joliet, Ill.

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PAPERWHITES            F. L. CALADIUMS  
AND OTHERS

#### CANE STAKES

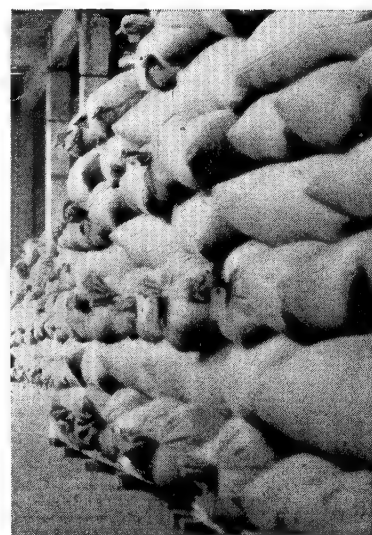
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95 Chambers St.                      New York

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Efficiently  
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Cleveland, O.	Los Angeles, Cal.	Philadelphia, Pa.	Springfield, Mass.
Dallas, Tex.	Memphis, Tenn.	Rochester, N. Y.	Springfield, Mo.
	Tampa, Fla.	San Francisco, Cal.	



# FIELD AND GRASS SEED INFORMATION

This information is made possible through the courtesy of Joe Bohl, Manager, The Chas. H. Lilly Co., Seattle, Washington, who has spent much time in its gathering and assembly.

CROP	Botanical Name	Principal Uses	Average Height Inches	Soil Adaptations	Life	General Information
ALFALFA	Medicago sativa	Seed, Hay, Pasture	20 to 30	Fertile, deep, well drained loam	Long-lived perennial	Best if seeded without nurse crop. Needs firm, fine seedbed. Cut for hay when $\frac{1}{4}$ to $\frac{1}{2}$ in bloom. Keep free of weeds.
ARTICHOKES, Jerusalem	Helianthus tuberosus	Winter succulence	72 to 96	Fertile bottom lands	Annual	Plant during April or early May, 5 inches deep in rows 36 to 42 inches apart, with plants 18 to 24 inches apart.
BENT GRASSES—						
ASTORIA	Agrostis tenuis, Astoriana	Seed, Lawn, Pasture	16 to 24	Moist, fertile, heavy soils	Long-lived perennial	More versatile than Seaside Bent. Thrives better on uplands, but must have firm soil and abundant moisture.
DOMESTIC Mixed	Agrostis spp.	Lawn, Pasture	16 to 20	Moist, fertile, heavy soils	Long-lived perennial	Best of the Bents for farm use. Adapted to varied soil conditions and cheapest in price.
HIGHLAND	Agrostia tenuis, Oregonensis	Seed, Lawn, Pasture	10 to 18	Widely adapted	Long-lived perennial	Grows well on poor, thin soil. Withstands long periods of water submersion and drought.
COLONIAL (Rhode Island)	Agrostis tenuis	Lawn, Pasture	16 to 24	Moist, heavy, slightly acid soils	Long-lived perennial	Does not spread by rootstalks like other Bents. Good in mixtures—makes early and late growth.
SEASIDE	Agrostis maritima	Seed, Lawn, Pasture	12 to 20	Moist bottom lands, slightly acid	Long-lived perennial	Adapted to pasture mixtures on moist, slightly acid lands. Suffers greatly from drought.
BLUEGRASSES—						
BULBOUS	Poa bulbosa	Winter Pasture, Hay, Seed	8 to 16	Fertile, well-drained lands		Grows during winter and early spring. Dormant in summer. Grows well with Alfalfa; used mostly on shallow rocky soil.
CANADA	Poa compressa	Pasture	12 to 20	Widely adapted	Long-lived perennial	Withstands drought, cold and close grazing. Thrives at high altitudes and on poor soils. Makes dense low growth.
KENTUCKY	Poa pratensis	Seed, Lawn, Pasture	18 to 30	Fertile, moist soils of low acidity	Long-lived perennial	Very nutritious. Relieved by all livestock. Improves with age on suitable soils.
SHADY (Wood Meadow Grass)	Poa nemoralis	Shady Lawns, Shady Pasture	18 to 24	Fertile, moist, shaded soils	Long-lived perennial	Does not endure intense sunshine and drought. Thrives best on shaded or semi-shaded lands.
SHADY (Rough-Stalked Meadow)	Poa trivialis	Shady Lawns, Shady Pasture	18 to 24	Fertile, moist, shaded soils	Long-lived perennial	Does not endure intense sunshine and drought. Thrives best on shaded lands that are moist and fertile.
BROMEGRASS, Smooth	Bromus inermis	Hay, Pasture	20 to 30	Deep clay or clay loam	Long-lived perennial	Adapted to regions of light rainfall. Roots penetrate 5 to 6 feet. Not adapted to coast region.
BUCKWHEAT	Fagopyrum esculentum	Seed, Green Manure	24 to 36	Wide adaptation	Annual	Good green manure crop. Sometimes used as smother crop for weeds. Good catch crop and bee pasture.
CEREALS—						
BARLEY, Winter	Hordeum vulgare, 6 row Hordeum distichon, 2 row	Seed, Hay	30 to 40	Loams and clays	Winter Annual	Grown mainly as a grain crop. Used for feed and malting. Best nurse crop for starting red clover.
BARLEY, Spring	Hordeum vulgare, 6 row Hordeum distichon, 2 row	Seed, Hay	30 to 40	Loams and clays	Annual	Grown mainly as a grain crop. Used for feed and malting. The beardless varieties make good hay.
OATS, Winter	Avena sativa	Seed, Hay	30 to 60	Moist clay loams	Winter Annual	Grown for grain and companion crop for vining legumes. Good yielder for forage and grain.
OATS, Spring	Avena sativa Avena byzantine, Red	Seed, Hay	30 to 60	Moist clay loams	Annual	Grown for grain, forage and companion crop. Good yielder.
RYE, Winter	Secale cereale	Seed, Hay, Pasture	36 to 72	Moderate drainage, wide adaptation	Winter Annual	Best grain and forage crop for light dry soils. Lodges badly on fertile moist soils.
RYE, Spring	Secale cereale	Seed, Hay, Pasture	36 to 60	Moderate drainage, wide adaptation	Annual	Best grain and forage crop for light dry soils. Lodges badly on fertile moist soils.
WHEAT, Winter	Triticum vulgare, common Triticum compactum, club	Seed, Hay	36 to 60	Bench and bottom lands	Winter Annual	Standard grain crop for fertile lands. Used as a hay crop in some areas, but most profitable as a grain crop.
WHEAT, Spring	Triticum vulgare, common Triticum compactum, club	Seed, Hay	36 to 60	Bench and bottom lands	Annual	Standard grain crop for fertile lands. Used as a hay crop in some areas, but most profitable as a grain crop.
CHEAT OR CHESS	Bromus secalinus	Seed, Hay	24 to 48	Poor lowlands, waste places	Winter Annual	Makes good horse hay on wet acid soils. Sometimes smuts badly.
CLOVERS—						
ALSIKE	Trifolium hybridum	Seed, Hay	18 to 30	Fertile, acid lowlands	Short-lived perennial	Thrives best where cool and moist. Endures poor drainage. Medium long-lived on suitable soil.
LADINO	Trifolium repens latum	Seed, Pasture	10 to 14	Moist, fertile soils	Short-lived perennial	Shallow rooted. Requires abundant moisture and fertility in surface soil. Very close grazing is injurious.
WHITE	Trifolium repens	Seed, Pasture	4 to 8	Moist, fertile soils	Short-lived perennial	A good pasture plant, especially in mixtures. Long season and long-lived on fertile, moist soil.
RED	Trifolium pratense	Seed, Hay, Pasture	20 to 28	Well drained, fertile soils	Short-lived perennial	Widely grown legume for forage and seed. Adapted to short rotations. Requires an abundance of lime.
MAMMOTH RED	Trifolium pratense	Hay, Pasture	24 to 48	Fertile uplands, moderately moist	Biennial	Two weeks later than medium red clover. Produces but one crop. Heavy yielder of coarse forage.
SWEET, Yellow	Melilotus officinalis	Hay, Pasture, Green Manure	24 to 48	Light to medium soils of low acidity	Biennial	Better adapted to pasture than white blossom sweet Clover. Does not thrive on acid soils.
SWEET, White	Melilotus alba	Seed, Pasture, Hay, Green Manure	48 to 84	Light to medium soils of low acidity	Biennial	Firm seed bed required. Quite tolerant of Alkali. More drought resistant than alfalfa.
CRIMSON	Trifolium incarnatum	Seed, Green Manure	24 to 48	Well drained, fertile soils	Biennial	A good soil improver. Seed shatters easily and careful harvesting is necessary. Makes good summer pasture.
STRAWBERRY	Trifolium fragiferum	Alkali Pastures	4 to 8	Moist alkali soils	Long-lived perennial	Most alkali tolerant of all legumes. Makes creeping growth. Adapted only where moisture is abundant.
CORN, Field	Zea mays	Silage, Grain, Green Feed	72 to 96	Fertile loams or clays, well drained	Annual	Successful only as cultivated crop. Good silage. Early maturing varieties for Pacific Northwest.
CRESTED DOGS-TAIL	Cynosurus cristatus	Pasture	10 to 18	Cool, moist, fertile soils	Long-lived perennial	Unimportant as a general farm grass. Adapted to shady places. Used some in shady lawns.
CRESTED WHEAT-GRASS	Agropyron cristatum	Seed, Pasture	16 to 30	Dry lands	Long-lived perennial	Excellent dry land grass for arid regions. A heavy seed producer.
FESCUES—						
CHEWING'S	Festuca rubra fallax	Seed, Lawn, Pasture	12 to 20	Well drained, fertile benches	Long-lived perennial	Very fine leaved, makes dense bottom growth—good lawn grass. Quite drought resistant.
CREeping RED	Festuca rubra	Lawn, Pasture	8 to 16	Well drained, fertile benches	Long-lived perennial	Adapted to lawn and pasture use on shady, moist soils of abundant fertility.
MEADOW	Festuca elatior pratensis	Hay, Pasture	24 to 36	Moist meadowlands	Short-lived perennial	Starts in early spring and persists until late fall. Cold resistant.
TALL	Festuca elatior	Seed, Hay, Pasture	24 to 40	Wide soil adaptation	Long-lived perennial	Grows from early spring to late fall. Particularly good for summer pasture.
FLAX, Fiber	Linum usitatissimum	Fiber	24 to 36	Fertile clay loams	Annual	Requires clean land—its sparse leaf growth does not check weeds. Grown for fiber and seed.
FLAX, Seed	Linum usitatissimum	Seed	18 to 30	Fertile clay loams	Annual	Requires clean, weed-free land. Grown for seed only.
KALE, 1000 Headed	Brassica oleracea acephala	Winter succulence	20 to 30	Fertile loams	Biennial	Start plants in seed bed. Transplant in early June. Ready for feeding after August 15th. Winter hardy.
MEADOW FOXTAIL	Alopecurus pratensis	Seed Pasture	15 to 30	Low, poorly drained lands	Long-lived perennial	Excellent pasture on periodically submerged lands. Seed hard stripped—ripens unevenly and shatters readily.
MILLETS—						
FOXTAIL	Chaetochloa italica	Hay, Seed	18 to 24	Warm, fertile loams	Annual	Best Millet for hay. Matures in 75 to 90 days. Best if cut before seed matures. Plant when soils warm.
JAPANESE	Echinochloa frumentacea	Pasture, Green Feed	30 to 48	Loams and shot clays in coastal areas	Annual	Especially adapted to the coastal fog belt. Yields large tonnage of green feed. Difficult to cure for hay.
PROSO or HOG	Panicum miliaceum	Seed, Green Feed	18 to 36	Warm loam soils	Annual	Seed when soils warm. Rapid grower—matures in 70 to 90 days. Yields heavy seed crop.
ORCHARD GRASS	Dactylis glomerata	Seed, Hay, Pasture	30 to 42	Well drained soils	Long-lived perennial	Grows well in shade. Early spring grower. Requires good drainage. Withstands dry summers.
PEAS, FIELD—						
WINTER, Austrian	Pisum arvense	Seed, Hay, Silage	36 to 54	Clay loams and bottom lands	Winter Annual	Best adapted for fall planting. Grown chiefly as a seed crop for shipment to the South.
SPRING, Canada	Pisum arvense	Seed, Hay, Pasture, Silage	24 to 48	Well drained clay and loam soil	Annual	Suited to many heavy soils which are well supplied with moisture. A good cash crop.
MARROWFAT	Pisum arvense	Seed, Hay, Pasture, Silage	30 to 48	Clay and loams	Annual or Winter Annual	Should be planted during the fall or winter on heavier soils having good drainage.

CROP	Botanical Name	Principal Uses	Average Height Inches	Soil Adaptations	Life	General Information
RAPE	Brassica napus	Seed, Pasture	6 to 12	Fertile loams and bottoms	Biennial	Good pasture for hogs and sheep. A dependable source of midsummer green feed in many districts.
REDTOP	Agrostis alba	Hay, Pasture	20 to 30	Wet lands	Long-lived perennial	Most widely adapted of tame grasses. Thrives on wet acid lands. Good in mixtures.
REED CANARY GRASS	Phalaris arundinacea	Seed, Hay, Pasture	48 to 80	Swampy or bottom lands	Long-lived perennial	Not adapted to mixtures. Suitable for permanent pasture on wet lands. Develops heavy seed.
ROOT CROPS—						
CARROTS	Daucus carota	Winter succulence		Fertile, moist bottom lands	Biennial	Yields less than other common root crops. Keeps well in storage, can be left in the ground until late in the fall.
MANGELS	Beta vulgaris	Winter succulence		Fertile, moist bottom lands	Biennial	Heavy yields, especially after liberal manuring. Keeps well in storage. Must be taken up before frost.
RUTABAGAS	Brassica campestris	Winter succulence		Fertile, moist bottom lands	Biennial	Higher yielder than mangels. Adapted to coast regions. Manure increases yield. Good for storage.
TURNIPS	Brassica rapa	Winter succulence		Fertile, moist bottom lands	Biennial	Highest yielder of all common root crops. For fall feeding. Does not keep well in storage.
RYE-GRASSES—						
DOMESTIC, Oregon	Lolium multiflorum	Seed, Hay, Pasture	18 to 36	Low lands, poor drainage	Winter Annual	A rapid growing forage crop. Good for spring pasture and seed.
ITALIAN	Lolium multiflorum	Seed, Hay, Pasture	18 to 36	Low lands, poor drainage	Biennial or Short-lived perennial	Fall planted—makes heavy forage growth and recovers rapidly after cutting.
PACEY'S	Lolium perenne	Lawn, Hay, Pasture	15 to 20	Low lands, poor drainage	Short-lived perennial	Little used on farms, but important in some sections for winter lawns.
PERENNIAL, English	Lolium perenne	Seed, Hay, Pasture	15 to 24	Low lands, poor drainage	Short-lived perennial	Longest-lived of rye grasses, and better suited to use in hay and pasture mixtures.
SORGHUM	Andropogon sorghum	Fodder, Green Feed	48 to 72	Warm, deep, fertile loams	Annual	Requires warm soil and warm growing season. Row culture necessary in Pacific Northwest.
SOYBEAN	Soja max	Seed, Hay, Green Feed	12 to 48	Warm, fertile loams	Annual	Not suited to the coast regions, but a satisfactory crop on some warm, fertile soils.
SUDAN GRASS	Andropogon sudanensis	Hay, Pasture	36 to 80	Warm clay loams	Annual	Thrives best if planted when the soil is warm. Reaches hay stage in 75 to 80 days. Good yielder.
SULLA	Hedysarum coronarium	Green Feed	20 to 30	Well drained soils	Perennial	Adaptability not yet fully determined. Plant as soon as frost danger is over.
SUNFLOWER	Helianthus annuus	Silage, Green Feed	72 to 96	Clay loams	Annual	Chiefly a silage crop. Endures more cold than corn. Thrives on the Coast. Seeded early in May.
SWEET VERNAL GRASS	Anthoxanthum odoratum	Hill-land Pasture	12 to 24	Well drained uplands	Perennial	Starts growth early in spring—makes tough sod. Thrives in the shade of brush and ferns.
TALL MEADOW OAT-GRASS	Arrhenatherum elatius	Seed, Hay, Pasture	36 to 60	Fertile, well drained uplands	Long-lived perennial	Does not endure shade. Makes good early and late pasture. Cut early for good quality hay.
TIMOTHY	Phleum pratense	Seed, Hay, Pasture	30 to 48	Fertile, moist, medium to heavy soils	Short-lived perennial	Well adapted to use in pasture and meadow mixtures. Responds well to fertilizer.
VELVET GRASS or MESQUITE	Holcus lanatus	Seed, Hay, Pasture	20 to 36	Wide adaptation	Perennial	Recommended only for soils too light for better grasses.
VETCHES—						
COMMON or GRAY	Vicia sativa	Seed, Silage, Hay, Green Feed	36 to 60	Well drained, fertile loams	Winter Annual	A spring vetch but commonly fall seeded in Pacific Northwest. Best to seed with grain for support.
HAIRY or WINTER	Vicia villosa	Green Manure, Seed, Pasture	36 to 60	Wide adaptation, needs good drainage	Winter Annual	Very winter-hardy. Seed shatters readily when ripe.
HUNGARIAN	Vicia pannonica	Green Manure, Hay, Seed	30 to 40	Medium wet, acid soils	Winter Annual	Less viny than common vetch. Greater winter-hardiness and aphid resistance, suited to poorly drained soils.
PURPLE	Vicia atropurpurea	Seed, Green Manure	24 to 48	Well drained clays or loams	Annual	Lacks winter hardiness. Often spring seeded. Makes heavy growth during cool early spring weather.
HAY MIXTURES		Hay	20 to 40	Fertile clays, loams and bottom lands	Mostly perennials	Mixtures make good farm hay. Adapted to varied soils and climates.
PASTURE MIXTURES		Pasture	6 to 30	Widely adapted	Mostly perennials	Especially desirable on new clearings and logged-off lands.

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# AGRICULTURAL SEEDS PERMITTED ENTRY UNDER FEDERAL SEED ACT

By Fiscal Years Ending June 30, 1935-1941, and by Countries Exporting

ALFALFA							
Country from Which Imported	1935 Pounds	1936 Pounds	1937 Pounds	1938 Pounds	1939 Pounds	1940 Pounds	1941 Pounds
Argentina .....	.....	.....	1,181,400	723,600	698,600	598,300	162,500
Canada .....	(1)123,300	56,700	1,742,200	2,928,900	2,466,700	2,777,900	1,360,000
France .....	.....	.....	(2)487,900	(3)354,800	.....	.....	.....
Germany .....	.....	.....	.....	.....	.....	.....	.....
Latvia .....	.....	.....	.....	.....	.....	.....	.....
Other countries .....	200	.....	(4)233,100	(5)582,300	(6)98,300	200	200
ALSIKE CLOVER							
Canada .....	700	26,300	2,496,800	255,700	6,900	440,500	200
Germany .....	.....	.....	.....	.....	.....	.....	.....
Other countries .....	(7)33,600	(7)35,900	(8)641,900	(9)654,100	200	.....	.....
WINTER RAPE							
China .....	.....	.....	.....	.....	.....	.....	.....
France .....	.....	.....	.....	.....	.....	.....	.....
Germany .....	.....	.....	(10)1,100	.....	.....	.....	.....
Great Britain .....	4,100	6,900	3,900	9,100	(11)7,300	(12)396,400	.....
Hungary .....	5,600	.....	(13)1,879,000	209,000	1,535,100	208,800	.....
Japan .....	7,594,500	7,320,800	1,368,500	3,529,700	2,118,500	4,067,700	299,000
The Netherlands .....	181,500	342,100	(14)3,517,100	1,007,000	3,412,100	(15)204,500	.....
Poland .....	.....	.....	725,500	10,900	.....	.....	.....
Other countries .....	(16)21,800	(17)101,400	.....	100	(18)275,300	(12)523,700	.....
HAIRY VETCH							
Canada .....	.....	.....	.....	.....	.....	7,600	.....
Czechoslovakia .....	.....	189,900	21,300	(19)2,134,000	1,877,200	65,900	.....
Denmark .....	.....	.....	.....	.....	.....	.....	.....
Germany .....	.....	95,000	68,400	(20)214,100	(10)297,300	.....	.....
Great Britain .....	.....	.....	.....	.....	.....	.....	.....
Hungary .....	21,800	985,100	2,732,900	3,158,900	4,115,600	2,508,200	.....
Latvia .....	.....	.....	.....	.....	.....	103,000	.....
Lithuania .....	.....	.....	.....	198,000	.....	.....	.....
Poland .....	.....	.....	202,100	32,400	.....	.....	.....
Sweden .....	.....	.....	.....	44,000	131,400	66,800	.....
Other countries .....	.....	(21)310,400	.....	.....	(22)77,200	.....	(21)27,000
PERENNIAL RYEGRASS							
Denmark .....	(23)16,100	37,200	18,700	96,800	60,100	36,600	8,100
Great Britain .....	(24)139,700	(25)220,400	(26)303,600	(27)614,600	(28)350,400	(29)322,600	(30)53,700
Northern Ireland .....	136,500	105,000	185,000	508,100	162,200	297,600	205,600
New Zealand .....	126,200	144,600	460,900	49,800	45,900	2,200	9,500
Other countries .....	800	.....	(31)4,600	(32)1,300	(33)3,500	(34)2,200	(35)16,700
CRIMSON CLOVER							
Czechoslovakia .....	.....	.....	.....	.....	.....	.....	.....
France .....	.....	.....	.....	.....	.....	(36)2,945,600	.....
Germany .....	.....	.....	(10)15,400	.....	.....	(10)230,800	.....
Great Britain .....	.....	.....	(10)18,000	400	(37)500	(38)55,600	.....
Hungary .....	196,700	2,105,200	5,518,800	2,248,100	4,678,000	2,159,200	.....
Poland .....	.....	.....	.....	.....	.....	55,000	.....
The Netherlands .....	.....	43,600	(39)87,300	11,000	(10)28,600	.....	.....

(1) 30,000 pounds American goods returned. (2) 366,700 pounds of Argentine origin; 121,200 pounds of South African origin. (3) 91,500 pounds of unestablished origin; 44,100 pounds of South African origin. (4) 85,500 pounds from Belgium (of Argentine origin); 15,300 pounds from the Netherlands (of Hungarian origin); 44,800 pounds from South Africa; 54,500 pounds from Rumania; 33,000 pounds from Austria (of Rumanian origin). (5) 558,400 pounds from South Africa; 21,800 pounds from Hungary; 2,000 pounds from Palestine (American goods returned); 100 pounds from Poland (American goods returned). (6) 66,000 pounds from Belgium (of South African origin); 32,300 pounds from South Africa. (7) American goods returned. (8) Latvian origin. (9) 285,500 pounds from Czechoslovakia (11,000 pounds of Hungarian origin); 176,400 pounds from Sweden; 131,100 pounds from Poland (65,100 pounds of Latvian origin); 43,600 pounds from Latvia; 10,800 pounds from the Netherlands; 6,600 pounds from France; 100 pounds from New Zealand. (10) Of Hungarian origin. (11) 1,000 pounds of Dutch origin. (12) Of Rumanian origin. (13) 33,100 pounds of Polish origin. (14) 32,400 pounds of Polish origin. (15) 105,500 pounds of Hungarian origin. (16) 21,700 pounds from Belgium; 100 pounds from Canada. (17) Of Belgian origin. (18) From Switzerland (of Rumanian

origin). (19) 33,200 pounds of Hungarian origin. (20) Of Czechoslovakian origin. (21) Of Japanese origin. (22) From Yugoslavia. (23) 14,100 pounds of British origin. (24) 108,300 pounds of Northern Irish origin. (25) 170,900 pounds of Northern Irish origin. (26) 268,500 pounds of Northern Irish origin; 27,500 pounds of New Zealand origin; 2,000 pounds of Danish origin; (27) 523,600 pounds of Northern Irish origin; 35,200 pounds of New Zealand origin; 13,300 pounds of Swedish origin. (28) 178,700 pounds of Danish and Northern Irish origin; 113,600 pounds of Northern Irish origin; 21,000 pounds of Danish origin. (29) 238,700 pounds of Northern Irish origin; 77,900 pounds of Northern Irish and Danish origin. (30) 47,500 pounds of Northern Irish origin. (31) 3,800 pounds from Sweden; 500 pounds from Germany (of Swedish origin); 300 pounds from Netherlands. (32) 1,100 pounds from Sweden; 200 pounds from Australia. (33) 3,300 pounds from Sweden; 200 pounds from Australia (100 pounds of New Zealand origin). (34) From Australia (100 pounds of New Zealand origin). (35) From Australia. (36) 115,400 pounds of Hungarian origin. (37) Of French origin. (38) 32,700 pounds of Hungarian origin; 900 pounds of French origin. (39) 43,600 pounds of Hungarian origin.

(Continued on next page)

# AGRICULTURAL SEEDS PERMITTED ENTRY UNDER FEDERAL SEED ACT

(Continued from preceding page)

## ORCHARD GRASS

Country	1935 Pounds	1936 Pounds	1937 Pounds	1938 Pounds	1939 Pounds	1940 Pounds	1941 Pounds
Denmark .....	366,600	729,100	1,819,700	219,400	1,580,600	263,800	.....
Germany .....	.....	.....	.....	.....	.....	100	.....
The Netherlands .....	.....	.....	.....	.....	.....	.....	.....
Other countries .....	(1)30,500	.....	(2)74,800	(3)1,000	(4)146,100	(5)23,900	(6)1,000

## RED CLOVER

Canada .....	200	11,100	(7)2,524,700	(8)937,900	21,100	5,800	(9)1,000
Czechoslovakia .....	.....	.....	118,800	(10)493,000	.....	.....	.....
France .....	.....	.....	1,100,800	2,688,900	186,300	98,900	.....
Germany .....	.....	.....	.....	(11)131,700	.....	.....	.....
Great Britain .....	(12)100,700	(12)35,900	(13)241,000	(14)67,200	.....	.....	.....
The Netherlands .....	.....	.....	(15)65,400	(16)54,500	.....	.....	.....
Poland .....	.....	.....	3,092,600	(17)1,419,300	40,700	.....	.....
Other countries .....	(18)200	.....	(19)6,736,000	(20)2,739,200	(21)350,200	(22)33,100	.....

## CANADA BLUEGRASS

Canada .....	129,700	155,900	120,400	180,800	13,900	25,500	45,800
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## COMMON VETCH

Canada .....	100	.....	.....	.....	.....	.....	.....
Germany .....	.....	.....	.....	.....	.....	.....	.....
Great Britain .....	.....	.....	.....	1,000	.....	100	.....
Latvia .....	.....	.....	.....	.....	.....	88,000	.....
The Netherlands .....	.....	.....	.....	.....	.....	.....	.....
Poland .....	.....	.....	67,900	10,900	.....	.....	.....
Other countries .....	(23)8,800	.....	(24)258,100	(25)2,402,400	(26)1,003,700	(27)160,900	.....

## RYEGRASS OTHER THAN PERENNIAL

Argentina .....	.....	.....	.....	.....	.....	281,200	.....
Denmark .....	5,500	15,900	23,600	802,600	19,900	.....	.....
France .....	.....	.....	.....	.....	.....	.....	.....
Great Britain .....	(28)5,200	.....	.....	(29)163,000	(28)1,300	.....	.....
Northern Ireland .....	.....	1,000	1,300	217,800	2,000	1,500	.....
The Netherlands .....	200	300	.....	10,900	.....	.....	.....
New Zealand .....	25,400	12,400	14,600	.....	200	5,300	900
Other countries .....	600	300	200	(30)2,800	(31)100	(32)4,200	.....

(1) 22,500 pounds from Great Britain (of Danish origin); 8,000 pounds from Japan. (2) 32,300 pounds from Great Britain (32,200 pounds of Danish origin); 31,000 pounds from New Zealand (9,000 pounds of Danish origin); 11,000 pounds from Hungary; 500 pounds from Australia (200 pounds of New Zealand origin). (3) 600 pounds from Great Britain (400 pounds of Swedish origin); 400 pounds from New Zealand. (4) 145,900 pounds from Great Britain (145,600 pounds of Danish origin); 100 pounds from New Zealand; 100 pounds from Sweden. (5) 22,400 pounds from Japan; 900 pounds from Great Britain; 500 pounds from New Zealand (300 pounds of Australian origin); 100 pounds from Australia (of New Zealand origin). (6) From New Zealand. (7) 200 pounds of New Zealand origin. (8) 7,500 pounds mixture of Canadian origin and American origin; 200 pounds of European origin. (9) 800 pounds American goods returned. (10) 207,800 pounds of Rumanian origin. (11) 67,500 pounds of Hungarian origin; 30,800 pounds of Lithuanian origin; 22,400 pounds of Czechoslovakian origin; 11,000 pounds of Latvian origin. (12) American goods returned. (13) 178,700 pounds of Chilean origin; 39,800 pounds of Polish origin; 22,400 pounds of Argentine origin. (14) 33,600 pounds of Hungarian origin; 33,600 pounds of Chilean origin. (15) Of Hungarian origin. (16) 22,000 pounds of French origin. (17) 2,900 pounds American goods returned

(18) Of Danish origin. (19) 3,967,700 pounds from Hungary; 1,191,100 pounds from Rumania; 988,800 pounds from Latvia; 312,300 pounds from Chile; 166,400 pounds from Austria (of Polish origin); 66,100 pounds from Belgium (44,100 pounds of Chilean origin; 22,000 pounds of Polish origin); 43,600 pounds from New Zealand. (20) 1,328,000 pounds from Rumania; 887,100 pounds from Hungary (66,000 pounds of Rumanian origin); 372,700 pounds from Chile; 98,100 pounds from Latvia; 43,600 pounds from Austria (21,800 pounds of Polish origin; 21,800 pounds of Lithuanian origin); 9,700 pounds from Denmark (of Lithuanian origin). (21) 307,200 pounds from Rumania, 42,700 pounds from Hungary; 200 pounds from New Zealand; 100 pounds from Sweden. (22) 33,000 pounds from Rumania; 100 pounds from New Zealand. (23) Of Belgian origin. (24) 190,000 pounds from Lithuania; 68,100 pounds from Hungary. (25) 2,120,800 pounds from Hungary; 275,000 pounds from Lithuania; 6,600 pounds from Sweden. (26) 934,000 pounds from Hungary; 69,200 pounds from Sweden; 500 pounds from New Zealand. (27) Of Rumanian origin. (28) Of Northern Irish origin. (29) 161,900 pounds of Northern Irish origin. (30) 2,400 pounds from Bermuda (American goods returned); 400 pounds from Australia. (31) From Australia (of New Zealand origin). (32) From Australia (100 pounds of New Zealand origin).

(Continued on next page)

# AGRICULTURAL SEEDS PERMITTED ENTRY UNDER FEDERAL SEED ACT

(Continued from preceding page)

## WHITE CLOVER

Country	1935 Pounds	1936 Pounds	1937 Pounds	1938 Pounds	1939 Pounds	1940 Pounds	1941 Pounds
Czechoslovakia .....	.....	10,800	.....	285,100	327,800	.....	.....
Denmark .....	100	(1)1,100	.....	8,500	3,700	.....	.....
France .....	.....	.....	.....	.....	(1)32,700	.....	.....
Germany .....	(2)234,900	(3)384,500	(4)220,200	(5)97,300	(6)2,200	.....	.....
Great Britain .....	(7)20,000	(8)35,400	(9)54,000	(10)202,100	(11)106,200	17,700	.....
The Netherlands .....	.....	10,800	21,700	49,000	(6)17,500	.....	.....
New Zealand .....	.....	.....	5,800	7,700	5,100	43,200	76,200
Poland .....	841,000	1,015,800	1,463,000	1,205,800	1,448,200	297,100	.....
Other countries .....	(12)2,000	(13)91,600	(14)203,200	(15)412,500	(16)441,500	(17)393,900	(18)4,800

## FOXTAIL MILLET

Argentina .....	.....	.....	.....	13,300	.....	.....	.....
Canada .....	76,300	53,600	26,000	.....	.....	.....	41,200
China .....	4,511,900	250,500	.....	.....	.....	.....	.....
Germany .....	(19)65,500	.....	.....	.....	.....	.....	.....
Hungary .....	812,300	.....	(20)273,000	.....	.....	.....	.....
Manchuria .....	5,288,900	.....	459,400	.....	.....	.....	.....
Other Countries .....	.....	.....	.....	.....	.....	.....	(21)100

## TIMOTHY

Canada .....	2,410,200	700	105,100	2,700	700	16,000	700
Denmark .....	(22)68,400	.....	.....	.....	.....	.....	.....
Finland .....	150,800	.....	.....	.....	.....	.....	.....
Germany .....	(23)350,300	.....	.....	.....	.....	.....	.....
Great Britain .....	(24)713,300	100	100	1,100	700	200	.....
Latvia .....	165,000	.....	.....	.....	.....	.....	.....
Poland .....	459,200	.....	.....	.....	.....	.....	.....
Sweden .....	(25)406,400	.....	.....	.....	200	.....	.....
Other countries .....	(26)20,900	.....	.....	.....	.....	.....	.....

(1) Of Polish origin. (2) 209,200 pounds of Polish origin. (3) 300,700 pounds of Polish origin; 81,600 pounds of Hungarian origin. (4) 209,100 pounds of Polish origin. (5) 75,300 pounds of Polish origin; 22,000 pounds of Czechoslovakian origin. (6) Of Czechoslovakian origin. (7) 4,200 pounds of Polish origin. (8) 700 pounds of Polish origin. (9) 31,100 pounds of Polish origin. (10) 112,100 pounds of Polish origin; 17,100 pounds of Czechoslovakian origin; 1,300 pounds of New Zealand origin; 1,100 pounds of Hungarian origin. (11) 53,000 pounds of Polish origin; 12,500 pounds of Hungarian origin; 3,800 pounds of Dutch origin. (12) 1,100 pounds from Canada (of Polish origin); 700 pounds from Australia; 200 pounds from Italy. (13) 14,200 pounds of Polish origin; 72,400 pounds from Hungary; 5,000 pounds from Japan. (14) 96,600 pounds from Hungary; 32,900 pounds from Austria (of Czechoslovakian origin); 31,900 pounds from Italy; 26,500 pounds from Canada (25,000 pounds of Italian origin); 15,200 pounds from Belgium (of Polish origin); 100 pounds from Australia

(of New Zealand origin). (15) 393,600 pounds from Hungary; 13,200 pounds from Italy; 5,300 pounds from Austria (of Czechoslovakian origin); 400 pounds from Australia. (16) 428,900 pounds from Hungary; 12,600 pounds from Italy. (17) 384,300 pounds from Hungary; 7,500 pounds from Japan; 1,500 pounds from Canada (American goods returned); 600 pounds from Australia. (18) 4,700 pounds from Hungary; 100 pounds from Canada. (19) Of Hungarian origin. (20) 87,200 pounds of Rumanian origin. (21) From Australia. (22) 39,600 pounds of Latvian origin; 13,400 pounds of Lithuanian origin. (23) 135,700 pounds of Swedish origin; 50,800 pounds of Polish origin; 22,100 pounds of Czechoslovakian origin; 22,000 pounds of Finnish origin; 22,000 pounds of Latvian origin. (24) 405,700 pounds of Finnish origin; 277,000 pounds of Swedish origin; 12,700 pounds American goods returned; 11,000 pounds of Lithuanian origin; 6,700 pounds of Polish origin. (25) 76,600 pounds of Finnish origin. (26) 10,900 pounds from the Netherlands; 10,000 pounds from Japan.

(Continued on next page)



# IMPORTS OF FIVE KINDS OF AGRICULTURAL SEEDS SUBJECT TO FEDERAL SEED ACT. EFFECTIVE FEBRUARY 5, 1940—BY COUNTRIES, 1935-1941

Year Ended June 30

## BENT GRASS

Country from Which Imported	1935 Pounds	1936 Pounds	1937 Pounds	1938 Pounds	1939 Pounds	1940 Pounds	1941 Pounds
Canada .....	(1)1,000	400	200	400	2,200	.....	600
Germany .....	1,500	3,800	.....	.....	.....	.....	.....
Great Britain .....	100	(2)2,300	100	(3)900	1,000	.....	.....
The Netherlands .....	3,400	7,300	16,000	18,200	21,200	9,000	.....
New Zealand .....	5,300	13,400	5,400	3,200	111,600	146,000	16,000
Other countries .....	.....	(4)2,200	.....	(5)600	.....	.....	.....
Total .....	11,300	29,400	21,700	23,300	136,000	155,000	16,600

## CRESTED DOGTAIL

Great Britain .....	(6)200	(7)3,500	.....	(8)3,600	(9)800	(6)3,100	(6)200
Northern Ireland .....	500	4,400	2,500	3,100	1,100	8,600	5,600
The Netherlands .....	.....	1,300	300	1,400	.....	200	.....
New Zealand .....	11,300	.....	9,900	16,400	100	2,600	.....
Other countries .....	.....	(10)10,000	.....	.....	.....	.....	.....
Total .....	12,000	19,200	12,700	24,500	2,000	14,500	5,800

## CHEWINGS FESCUE

Great Britain .....	(11)69,700	(11)22,700	(11)15,100	(11)24,500	(12)55,600	.....	.....
New Zealand .....	685,400	680,100	1,116,200	1,154,400	830,300	1,052,300	1,530,600
Other countries .....	.....	.....	(4)300	.....	.....	.....	.....
Total .....	755,100	702,800	1,131,600	1,178,900	885,900	1,052,300	1,530,600

## OTHER FESCUE

Denmark .....	.....	.....	.....	2,100	25,000	1,300	.....
Germany .....	51,000	50,000	97,100	107,500	(13)113,100	.....	.....
Great Britain .....	(14)100	(15)13,000	(1)5,500	(16)1,700	(17)71,200	300	400
The Netherlands .....	300	(18)14,100	11,500	74,900	(19)70,000	56,500	.....
Other countries .....	.....	.....	(4)200	(20)3,200	(21)52,200	(22)77,300	(23)10,000
Total .....	51,400	77,100	114,300	189,400	331,500	135,400	10,400

## ROUGH BLUEGRASS

Denmark .....	274,100	466,600	391,600	657,400	648,400	856,900	500
Germany .....	.....	.....	.....	.....	.....	.....	.....
Great Britain .....	(24)15,800	2,200	(25)85,400	(26)133,800	(27)61,600	.....	.....
The Netherlands .....	2,200	.....	600	(28)6,600	.....	400	.....
Other countries .....	.....	.....	.....	.....	.....	.....	(29)1,100
Total .....	292,100	468,800	477,600	797,800	710,000	857,300	1,600

(1) Of German origin. (2) 2,200 pounds of New Zealand origin. (3) 500 pounds of German origin. (4) Of Australian origin. (5) Of Danish origin. (6) Of Northern Irish origin. (7) 2,200 pounds of Northern Irish origin. (8) 1,100 pounds of Northern Irish origin. (9) 600 pounds of Northern Irish origin. (10) Of Canadian origin. (11) Of New Zealand origin. (12) 55,400 pounds of New Zealand origin. (13) 6,600 pounds of Hungarian origin. (14) Of Dutch origin. (15) 6,700 pounds of New Zealand origin; 5,900 pounds of German origin. (16) 1,100 pounds of German origin. (17) 27,700 pounds of German origin; 18,300 pounds of Hungarian origin; 11,000 pounds of New Zealand origin; 4,400 pounds of

Dutch origin. (18) 300 pounds of German origin. (19) 10,800 pounds of German origin. (20) 1,600 pounds of Canadian origin; 1,600 pounds of Hungarian origin. (21) 41,600 pounds from Hungary; 8,400 pounds from Canada (2,200 pounds of New Zealand origin); 2,200 pounds from Czechoslovakia. (22) 71,600 pounds from Hungary; 5,700 pounds from Canada. (23) 5,500 pounds of Canadian origin; 4,500 pounds of Hungarian origin; (24) 15,500 pounds of Danish origin. (25) 80,800 pounds of Danish origin; 200 pounds of Polish origin. (26) 132,200 pounds of Danish origin. (27) 56,700 pounds of Danish origin. (28) 5,400 pounds of Danish origin. (29) From Canada of Danish origin.

## SUGAR BEET SEED IMPORTS BY COUNTRIES, 1924-1940

*Compiled from Foreign Commerce and Navigation of the United States.*

Country from which imported	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Austria.....	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada.....	147	144	232	355	160	476	66	88	1	0	0	0	0	0	0	0	0
Czechoslovakia.....	0	0	33	410	1,351	1,719	1,538	869	2,593	2,692	392	598	882	3,052	210	66	0
Denmark.....	919	713	846	635	369	300	594	893	1,355	1,754	870	467	391	662	427	1,123	217
France.....	27	69	102	0	0	66	1	0	0	0	2	0	0	0	0	0	0
Germany.....	6,306	10,660	8,700	11,583	10,630	12,651	11,795	11,575	16,022	14,946	12,924	9,392	8,517	6,869	3,400	3,707	0
Netherlands.....	3,350	469	226	118	75	39	5	38	67	59	54	249	29	355	6	1,667	12
Poland and Danzig.....	269	414	318	228	374	215	464	450	873	795	985	596	897	2,043	598	734	0
Soviet Russia in Asia.....	0	0	0	42													0
Soviet Russia in Europe.....	41	0	0	2	58	34	3	1	0	0	0	46	66	2	0	0	0
United Kingdom.....	3	3	0	3	6	3	6	4	3	29	29	1	2	34	1	1	0
Other Countries.....	0	0	333	3	0	0	0	44	0	0	1	0	110	0	28	2945	549
<b>Total.....</b>	<b>11,082</b>	<b>12,472</b>	<b>10,790</b>	<b>13,379</b>	<b>13,023</b>	<b>15,503</b>	<b>14,471</b>	<b>13,962</b>	<b>20,913</b>	<b>20,277</b>	<b>15,756</b>	<b>11,349</b>	<b>10,960</b>	<b>13,017</b>	<b>4,654</b>	<b>8,243</b>	<b>780</b>

<sup>1</sup>Less than 500 pounds. <sup>2</sup>7,936 pounds from Italy. <sup>3</sup>943,372 pounds from Italy.

## TIMOTHY SEED EXPORTS FROM THE UNITED STATES, BY COUNTRIES OF DESTINATION 1928-1940

*Compiled from Foreign Commerce and Navigation of the United States.*

Country to which exported	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Belgium.....	22,400	11,000	28,600	130,026	0	0	0	48,600	77,318	132,628	138,002	40,454	0
Canada.....	8,725,885	6,342,738	12,532,960	6,324,495	8,565,213	3,191,510	3,291,045	190,483	2,342,742	411,247	1,399,462	5,307,717	6,072,062
Denmark.....	581,150	273,930	165,772	331,375	38,599	0	0	18,500	0	0	0	0	0
France.....	105,860	24,449	7,516	197,542	45,563	1,228	0	201,113	98,586	177,129	175,570	154,120	270,764
Germany.....	829,100	219,356	345,519	496,620	210,799	35,088	0	173,258	0	82,475	0	1,732,902	0
Irish Free State.....	13,528	111,042	58,091	25,856	37,257	22,440	0	35,945	108,272	168,919	233,881	170,383	114,894
Italy.....	2,333	2,210	44,200	2,210	1,134	0	0	4,400	2,200	0	0	17,600	2,200
Japan.....	9,058	15,184	20,244	27,514	37,887	15,000	6,046	9,981	0	9,000	37,943	0	0
Netherlands.....	116,275	65,193	88,994	166,321	51,599	65,036	0	171,780	90,468	169,932	327,151	230,679	75,313
New Zealand.....	353,970	294,017	191,356	191,138	218,693	259,238	114,215	472,076	184,321	296,437	233,240	275,365	312,120
Newfoundland & Labrador.....	59,522	31,700	44,200	47,008	34,650	48,193	42,840	19,040	25,225	55,525	48,683	54,470	84,526
Norway.....	327,747	241,648	269,917	0	0	0	0	0	0	0	0	0	0
Switzerland.....	8,800	0	7,500	2,646	60,500	0	11,008	94,785	59,730	0	15,676	82,971	37,775
United Kingdom.....	972,712	1,522,323	1,985,296	2,533,593	1,581,728	1,353,708	233,066	1,973,724	1,013,444	1,727,538	1,833,897	2,338,565	2,608,037
Other Countries.....	92,058	40,232	138,406	0	7,040	217,806	0	11,031	300	940	48,044	1,110	6,779
<b>Total.....</b>	<b>12,220,398</b>	<b>9,195,022</b>	<b>15,828,571</b>	<b>10,476,344</b>	<b>10,890,662</b>	<b>5,009,247</b>	<b>3,698,220</b>	<b>3,424,716</b>	<b>4,002,606</b>	<b>3,231,770</b>	<b>4,491,549</b>	<b>10,406,336</b>	<b>9,584,270</b>

<sup>1</sup>32,000 pounds to Hungary. <sup>2</sup>15,266 pounds to Austria.

## RED CLOVER SEED EXPORTS FROM THE UNITED STATES, BY COUNTRIES OF DESTINATION, 1928-1940

*Compiled from Foreign Commerce and Navigation of the United States.*

Country to which exported	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Australia.....	18,074	0	0	0	0	0	0	0	0	0	0	0	11,480
Belgium.....	0	16,309	0	0	0	234,325	172,633	0	2,200	0	0	0	0
Canada.....	211,535	58,051	170,688	488,656	87,333	805	121,229	6,232	9,341	79,475	0	881	10,575
Denmark.....	28,773	44,331	11,338	0	0	11,000	16,314	6,785	6,770	4,521	0	0	0
France.....	2,996	8,860	21,701	0	0	976,450	235,684	11,000	0	33,762	0	0	0
Germany.....	164,188	117,005	206,678	49,103	76,172	230,330	120,672	20,537	10,975	15,458	0	0	0
Netherlands.....	13,429	63,628	51,609	0	0	2,500	0	20,780	22,380	85,207	33,000	1,000	0
New Zealand.....	9,000	0	114	1,142	20,340	11,200	175,682	6,990	2,427	0	11,160	1,120	0
United Kingdom.....	2,313	203,133	55,150	116,065	100,545	1,420,162	195,514	184,293	34,986	232,088	135,967	220,488	681,079
Other Countries.....	5,430	112,218	218,194	15,338	13,509	2138,666	53,892	54,820	236,192	12,678	2,645	760	24,358
<b>Total.....</b>	<b>455,738</b>	<b>523,535</b>	<b>535,472</b>	<b>670,304</b>	<b>297,899</b>	<b>3,025,438</b>	<b>1,091,620</b>	<b>311,437</b>	<b>125,271</b>	<b>463,189</b>	<b>182,772</b>	<b>224,249</b>	<b>727,492</b>

<sup>1</sup>11,000 pounds to Poland and Danzig. <sup>2</sup>17,603 pounds to Japan. <sup>3</sup>83,616 pounds to Japan; 22,000 pounds to Austria, and 33,000 pounds to Italy. <sup>4</sup>51,823 pounds to Japan. <sup>5</sup>32,050 pounds to Japan.

# WHOLESALE SELLING PRICES FOR BEST GRADES OF FIELD SEEDS AT IMPORTANT MARKETS, 1929-1941

Compiled from office records, by the Agricultural Statistics Division, Agricultural Marketing Service, U. S. Department of Agriculture.  
(Per 100 pounds, except for last 8 kinds where prices per bushel are given.)

Kind of Seed	Market	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Alfalfa.....	Kansas City.....	26.05	24.80	22.55	13.65	13.60	13.00	19.80	15.20	29.60	34.00	24.75	22.75	19.01
Red clover.....	Chicago.....	33.65	21.35	25.05	16.35	11.40	14.75	23.65	20.90	38.25	40.00	18.00	18.70	14.00
Alsike clover.....	Chicago.....	34.65	19.90	23.50	15.05	11.95	16.25	28.65	23.30	25.95	33.00	16.25	23.00	14.50
Sweetclover.....	Minneapolis.....	8.50	8.00	9.20	5.50	4.50	6.50	10.40	6.25	17.00	11.35	7.75	6.90	6.60
White clover.....	Chicago.....	28.30	27.50	39.05	40.50	27.85	30.50	27.50	27.10	30.10	35.00	42.50	62.50	72.00
Crimson clover.....	Baltimore.....	12.00	11.50	9.00	6.75	9.20	9.20	12.05	7.55	7.80	10.35	12.70	11.60	10.85
Lespedeza.....	Louisville.....	20.45	14.35	14.70	8.10	7.50	5.00	10.50	5.65	15.60	5.45	3.50	5.55	5.40
Timothy.....	Chicago.....	6.55	8.05	10.55	4.30	3.25	8.50	22.80	3.65	6.95	4.00	4.00	6.35	5.25
Redtop.....	Chicago.....	14.60	16.50	24.20	8.70	5.30	8.40	13.95	9.35	21.50	11.50	11.15	11.35	10.25
Kentucky bluegrass.....	Kansas City.....	31.30	20.00	35.35	13.45	8.35	13.40	23.20	12.30	18.35	10.65	10.50	19.50	18.50
Orchard grass.....	Louisville.....	16.70	17.15	16.05	7.35	7.30	9.70	16.20	12.50	18.30	16.15	17.50	16.90	26.00
Meadow fescue.....	Kansas City.....	16.00	10.00	10.75	5.50	4.15	7.05	18.00	7.00	10.50	8.85	12.00	14.00	16.00
Chewings fescue.....	Baltimore.....	29.75	27.00	36.00	22.65	11.75	19.35	55.45	41.90	31.80	39.75	60.00	51.00	32.90
Sheep's fescue.....	Baltimore.....	25.00	22.00	27.50	14.90	10.95	14.85	52.45	30.25	29.00	26.10	35.00	45.00	45.00
German mixed bent.....	Baltimore.....	50.00	55.00	85.00	71.60	62.00	72.15	85.90	52.70	45.00	58.10	55.00	59.00	
Bermuda grass.....	Baltimore.....	32.00	33.80	31.35	16.25	12.10	10.55	20.40	23.45	26.75	22.90	24.60	23.70	19.70
Bromus inermis.....	Minneapolis.....	12.00	18.50	20.00	14.00	8.00	16.20	26.00	13.45	26.00	19.45	17.05	16.60	19.00
Italian ryegrass.....	Baltimore.....	9.15	9.25	9.50	8.85	7.10				7.10	7.50	7.80		
Perennial ryegrass.....	Baltimore.....	8.40	8.75	10.00	8.85	7.10	11.40	11.90	10.20	11.30	9.00	11.00	11.00	12.40
Domestic ryegrass.....	Baltimore.....			5.00	3.45	3.70	6.70	5.20	4.50	7.10	7.55	6.25	6.00	5.00
German millet.....	Kansas City.....	3.45	3.45	3.70	1.80	1.55	3.35	7.00	2.70	4.90	3.25	1.85	2.60	3.25
Siberian millet.....	Minneapolis.....	2.75	3.10	3.40	2.60	2.40	3.65	6.10	2.75	3.40	2.35	2.50	3.75	4.25
Hungarian millet.....	Chicago.....	4.65	4.10	3.50	2.25	1.95	2.90	6.05	3.00	5.00	3.50	3.15	4.50	3.50
Japanese millet.....	Chicago.....	5.25	4.20	3.70	3.20	2.90	3.00	6.00	2.50	3.25	3.00	3.00	5.45	5.00
Broomcorn millet.....	Minneapolis.....	2.40	3.00	2.40	1.95	1.80	2.20	4.30	2.25	2.75	2.30	2.50	2.15	1.65
Amber sorgo.....	Kansas City.....	2.30	3.45	2.80	1.25	1.20	2.10	5.40	2.70	3.95	1.80	1.60	2.75	2.70
Orange sorgo.....	Kansas City.....	2.30	3.30	2.80	1.75	2.05	5.50	12.30	3.15	4.60	3.25	3.55	3.50	3.85
Sudan grass.....	Kansas City.....	5.80	5.40	7.40	1.75	2.05	4.30	3.60	4.00	5.95	6.55	6.35	7.30	16.50
Rape.....	Baltimore.....	6.65	5.70	4.30	4.15	3.75	4.30	3.60	4.00	5.95	8.85	8.50	10.80	10.00
Hairy vetch.....	Baltimore.....	9.30	9.00	8.45	7.50	7.00	8.75	11.50	9.75	8.85	8.50	8.20	10.80	10.00
Common vetch.....	Baltimore.....	4.50	4.80	4.50	4.00	3.50	5.00	3.50	3.75	5.00	4.65	5.00	6.75	6.00
Canada field peas.....	Minneapolis.....	5.45	5.25	3.85	4.80	4.50	3.85	3.85	4.00	5.15	5.35	4.85	5.85	5.20
Kafir.....	Kansas City.....	1.95	2.05	1.75	1.15	1.10	1.40	3.20	2.00	3.15	1.75	1.55	2.30	2.30
Cowpeas.....	Bu. Baltimore.....	3.50	3.30	2.70	1.05	.95	2.50	2.50	2.30	3.00	2.20	2.40	1.90	2.25
Soybeans.....	Louisville.....	2.50	2.25	2.15	.75	.95	1.45	1.60	1.35	2.25	1.35	1.15	1.50	1.50
Seed corn.....	Chicago.....	1.80	1.75	1.65	1.20	.85	1.00	1.75	2.95	2.50	1.50	1.25	1.40	1.35
Seed wheat.....	Minneapolis.....	1.60	1.65	1.15	1.00	.90	1.25	1.50	1.65	2.00	1.35	1.25	1.40	1.30
Seed oats.....	Minneapolis.....	.85	.80	.65	.55	.45	.65	.90	.70	.90	.75	.65	.75	.75
Seed barley.....	Minneapolis.....	.95	.80	.75	.75	.65	.95	1.45	1.00	1.70	1.15	.90	.90	.90
Seed rye.....	Minneapolis.....	1.55	1.50	1.05	.90	.80	1.35	1.50	1.25	1.45	1.30	1.10	1.25	1.25
Seed buckwheat.....	Minneapolis.....	1.40	1.50	1.30	1.20	.95	1.20	1.15	1.85	1.75	1.35	1.10	1.10	1.00

## ALFALFA SEED EXPORTS FROM THE UNITED STATES, BY MONTHS 1923-1941

Compiled from Monthly Summary of Foreign Commerce of the United States.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
1923	23,977	58,591	28,267	17,114	22,524	2,027	12,313	27,317	103,565	68,459	24,152	11,040	399,346
1924	15,506	17,649	12,557	8,248	8,945	3,050	2,897	21,226	56,417	53,258	146,131	17,385	363,269
1925	22,358	45,910	25,369	7,806	2,701	1,990	48,669	181,018	141,241	245,620	101,656	508,645	1,332,992
1926	103,599	24,898	17,704	27,698	14,282	2,962	7,880	18,330	92,222	203,393	77,414	151,134	741,516
1927	185,827	154,543	362,841	16,169	12,661	6,485	15,125	152,410	87,829	49,028	128,762	221,794	1,393,474
1928	85,370	53,194	54,674	59,622	24,861	9,280	9,975	119,021	187,319	65,102	38,253	75,249	781,920
1929	95,584	9,577	67,602	141,753	6,407	1,023	14,817	61,693	194,960	150,950	23,111	38,353	825,830
1930	260,630	172,480	125,307	13,494	2,766	745	3,075	114,711	44,509	48,394	44,407	2,447	832,965
1931	42,943	26,267	18,270	5,422	371	5,170	3,324	7,410	11,404	6,190	8,782	82,491	218,044
1932	7,319	72,909	6,366	3,015	1,550	2,150	5,078	12,613	60,828	40,501	604,391	747,921	1,564,641
1933	175,858	32,587	33,993	1,635	8,478	1,780	8,114	101,112	32,783	115,725	189,577	497,154	1,198,796
1934	311,699	212,760	18,986	9,135	20,166	3,100	54,736	105,848	71,157	67,096	57,033	27,185	958,901
1935	24,431	18,427	26,679	13,549	7,234	3,603	7,475	49,234	93,350	144,384	81,481	39,150	508,997
1936	58,360	14,259	19,995	4,620	12,313	1,069	11,116	15,418	85,329	34,216	10,539	16,339	283,573
1937	41,341	2,455,581	20,666	10,401	5,611	1,450	7,969	58,123	152,685	114,301	156,307	73,825	3,098,260
1938	90,371	40,403	14,962	3,850	12,770	1,510	1,050	16,955	74,272	23,065	53,310	22,370	354,888
1939	18,823	10,611	14,500	7,608	3,550	570	2,420	14,790	20,881	149,979	86,099	119,362	449,193
1940	45,677	19,960	18,968	17,570	11,975	7,225	16,156	63,073	67,883	114,129	72,131	30,473	485,220
1941	332,217	109,489	97,365	9,488	27,186	17,985	25,336	35,396					654,462

1—8 months ended August.

## IMPORTS AND PRICES OF VEGETABLE SEEDS

Compiled from figures published by Department of Commerce

Kind of Seed	Import-Duty Per lb. Cents	Imports—Calendar Years					Average Prices				
		1937	1938	1939	1940	1941*	1937	1938	1939	1940	*1941
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Per Lb.	Per Lb.	Per Lb.	Per Lb.	Per Lb.
Beet, garden.....	3	285,256	231,286	115,913	65,764		\$ .128	\$ .127	\$ .126	\$ .128	
Beet, mangel.....	2	323,250	187,784	128,243	81,369		.082	.078	.076	.093	
Cabbage.....	6	429,099	472,318	334,074	94,141	48,333	.376	.335	.363	.362	\$ .643
Carrot.....	3	13,559	19,211	6,496	5,388						
Caulliflower.....	25	15,191	20,234	12,681	9,479		5.395	3.878	6.838	7.133	
Kale.....	3	54,023	57,103	49,274	21,702		.154	.144	.136	.159	
Kohlrabi.....	8	23,379	19,653	8,554	10,414		.394	.402	.363	.353	
Onion.....	15	210,000	132,041	104,947	131,704	62,367	.553	.576	.557	.596	.642
Parsley.....	2	82,357	27,778	6,819	18,552		.055	.094	.151	.099	
Parsnip.....	4	7,024	7,093	7,350	3,085		.150	.171	.189	.171	
Pepper.....	15	989	877	300	1,084		.709	.702	.687	.326	
Radish.....	3	797,216	675,968	662,777	210,457		.119	.123	.124	.137	
Rutabaga.....	3	47,548	47,434	40,761	35,304		.112	.105	.095	.097	
Spinach.....	1/2	3,460,240	2,559,563	2,883,233	550,113	20,080	.074	.075	.072	.081	.122
Turnip.....	3	875,141	495,838	442,979	360,606	63,477	.084	.092	.090	.093	.106

\*Eight months ending August, 1941. All prices F.O.B. port of origin and not including duty.

# FLOWER SEED GERMINATIONS BY ARTIFICIAL MEANS

Compiled by

H. E. VEGIARD, Seed Analyst for  
H. G. HASTINGS CO., Atlanta, Ga.

*High*—Germination found over a four year period using the average of each year's highest test.

*Standard*—The four year average at which new flower seed should germinate.

*Botanical Name*—Taken from Bailey's Encyclopedia and Gray's Manual. Open to comment.

*Common Name*—The name of variety found on the average seed packet.

## COMMON NAME

## BOTANICAL NAME

Kind	Variety	High	Stan.		
Ageratum	Dwarf Blue	87%	75%	Ageratum	mexicanum
Alyssum		87	85	Lobulana	maritima
Alyssum	Yellow	65	60	Alyssum	saxatile
Anemone	Wind flower	85	70	Anemone	
Arabis	White	76	70	Arabis	alpina
Armeria	Sea Pink	80	70	Armeria	maritima
Aster	Vick's Branching	82	70		
Aster	Crego	90	80		
Baby's Breath	Annual	95	80	Gypsophila	elegans
Baby's Breath	Perennial	95	80	Gypsophila	paniculata
Bachelor Button		85	75	Centaurea	cyanus
Balsam		89	80	Impatiens	
Blue Lace Flower		82	78	Didiscus	coeruleus
Border of Gold	Yellow Dw. Tagetes	93	80	Tagetes	signata pumila
Calendula	Orange	85	75	Calendula	officinalis
Calendula	Radio	87	75		
Calliopsis		87	70	Coreopsis	tinctoria
Candytuft		86	80	Iberis	umbellata
Canterbury Bells	Giant	85	80	Campanula	medium
Carnation	Chabauds	83	80	Dianthus	caryophilus
Chrysanthemum		75	75	Chrysanthemum	carnation
Clarkia		83	80	Clarkia	elegans
Cockscomb	Dwarf	95	80	Celosia	cristata
Cockscomb	Plume	80	80	Celosia	plumosa
Columbine		68	65	Aquilegia	
Coreopsis		68	60	Coreopsis	lanceolata
Cosmos	Single and Double	86	80	Cosmos	bipinnatus
Cosmos	Orange Flare	85	80	Cosmos	sulphineus
Cardinal Climber		88	85	Ipomea	quamoclit sloteri
African Daisy	Orange	83	65	Dimorphotheca	aurantiaca
African Daisy	Colors			Arctotis	breviscapa
English Daisy	Double	88	85	Bellis	
Persian Daisy		80	70	Pyrethrum	
Swan River Daisy		94	85	Brachycome	iberidifolia
Dianthus	Dwarf Pink	88	80	Dianthus	caesius
Foxglove		85	80	Digitalis	
Forget-me-not	Indigo Blue	75	70	Myosotis	alpestris
Four O'Clock	Marvel of Peru	85	80	Mirabilis	jalapa
Gaillardia	Lorenziana	80	65	Gaillardia	aristata
Godetia	Whitneyi			Oenothera	
Gourds	Ornamental	85	80		
Heliotrope		52	40	Heliotropium	peruvianum
Hollyhock	Double Chaters	75	70	Althaea	rosea
Hop Vine	Japanese			Humulus	japonicus
Iberis	Violet Rose	85	75	Iberis	gibraltarica
Kudzu Vine		75	75	Pueraria	thumbergiana
Larkspur	Annual Pink	70	65	Delphinium	agacis
Larkspur	Annual Mixed	78	70	Delphinium	agacis
Delphinium	Perennial	86	70	Delphinium	
Lobelia	Crystal Palace	88	75	Lobelia	erinus
Love in the Mist		93	80	Nigella	damascena
Lupin	Mixed	90	75	Lupinus	
Marigold	African Tall	93	85	Tagetes	erecta
Marigold	French Dwarf	93	85	Tagetes	patula
Marigold	Harmony	98	85	Tagetes	patula
Marigold	Guinea Gold	90	85	Tagetes	erecta
Mexican Fire Bush		83	70	Kochia	
Mignonette		83	65	Mignonette	
Moonflower		96	85	Ipomoea	bona-nox
Morning Glory	Mammoth Japanese	90	80	Ipomoea	imperiais
Morning Glory	Heavenly Blue	92	80	Ipomoea	rubro coerulea
Mourning Bride		83	75	Scabiosa	
Nasturtium	Dwarf	85	80	Tropaeolum	minus
Nasturtium	Tall	84	80	Tropaeolum	majus
Nasturtium	Dbl. Golden Gleam	88	80	Tropaeolum	minus
Nasturtium	Glorious Gleam Hyb.	90	80	Tropaeolum	minus
Nemophila	Baby's Eyes	92	85	Nemophila	insignis

BUYERS GUIDE



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ries Still Open—Write  
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**The SOILMASTER Co.**  
**Berrien Springs Michigan**

**COMMON NAME**

**BOTANICAL NAME**

Kind	Variety	High	Stan.		
Nicotiana	Mixed colors	89	80	Nicotiana	affinis
Pansy	Mixed	74	70		
Pansy	Jet Black	80	70		
Petunia	Mixed	88	75		
Petunia	Colors	85	70		
Pinks	Garden	90	80	Dianthus	plumarius
Poppy	California	85	80	Eschscholtzia	
Poppy	Iceland	65	60	Papaver	nudicule
Poppy	Peony Flowered	90	85	Papaver	somniferum
Poppy	Shirley	90	85	Papaver	rohocas
Portulaca	Moss Rose	90	75		
Salpiglossis		88	75	Salpiglossis	sinuata
Salvia		62	60	Salvia	splendens
Siberian Wallflower		85	80	Cherianthus	allionii
Snapdragon		84	70	Antirrhinum	majus
Snow on the Mountain				Euphorbia	variegata
Soapwort	Rose	85	75	Saponaria	ocymoides
Statice	Everlasting	86	80	Statice	sinuata
Stocks		88	80	Matthiola	incana
Strawflower	Everlasting	92	75	Helichrysum	monstrosum
Sunflower	Double German	92	90	Helianthus	decapetalus
Sweet Peas	Mixed	98	90	Lathyrus	odorthus
Sweet Peas	Colors	95	90	Lathyrus	odorthus
Sweet Peas	Perennial	80	70	Lathyrus	latifolius
Sweet Sultan		91	80	Centaurea	moschata
Sweet William		90	85	Dianthus	barbatus
Verbena	Mixed	58	50		
Verbena	Colors	52	50		
Wallflower	English	90	80	Cheiranthus	cheiri
Wonder Bean		90	85	Ricinus	levidus
Zinnia	Mixed	93	80		
Zinnia	Colors	90	80		

**GLOSSARY OF FEDERAL  
AGENCIES**

AAA—Agricultural Adjustment admin-  
istration.

AFL—American Federation of Labor.

CAA—Civil Aeronautics administration.

CAB—Civil Aeronautics board.

CCC—Civilian Conservation corps.

CCC—Commodity Credit corporation.

CEA—Commodity Exchange adminis-  
tration.

CIO—Congress of Industrial Organiza-  
tions.

CSC—Civil Service commission.

DHC—Defense Homes corporation.

DLC—Disaster Loan corporation.

DPC—Defense Plant corporation.

DSC—Defense Supplies corporation.

ECC—Employees Compensation commis-  
sion.

EHFA—Electric Home and Farm au-  
thority.

FCA—Farm Credit administration.

FCC—Federal Communications com-  
mission.

FCIC—Federal Crop Insurance corpo-  
ration.

FDA—Food and Drug administration.

FFMC—Federal Farm Mortgage corpo-  
ration.

FHA—Federal Housing administration.

FHLBB—Federal Home Loan Bank  
board.

FLA—Federal Loan agency.

FPC—Federal Power commission.

FREB—Federal Real Estate board.

FSA—Federal Security agency.

FSA—Farm Security administration.

FSLIC—Federal Savings and Loan In-  
surance corporation.

FTC—Federal Trade commission.

FWA—Federal Works agency.

HOLC—Home Owners' Loan corpora-  
tion.

ICC—Interstate Commerce commission.

MLB—Maritime Labor board.

MRC—Metal Reserve company.

NACA—National Advisory Committee  
for Aeronautics.

NLRB—National Labor Relations  
board.

NMB—National Mediation board.

NRA—National Recovery administra-  
tion.

OCD—Office of Civilian Defense.

OEM—Office for Emergency Manage-  
ment.

OFF—Office of Fact and Figures.

OFLA—Office of Federal Loan admin-  
istrator.

OGR—Office of Government Reports.

OPACS—Office of Price Administration  
and Civilian supply.

OPM—Office of Production Manage-  
ment.

OQG—Office of Quartermaster General.

PWA—Public Works administration.

REA—Rural Electrification administra-  
tion.

USHA—United States Housing author-  
ity.

USO—United Service organizations.

RFC—Reconstruction Finance corpora-  
tion.

SEC—Securities and Exchange commis-  
sion.

SMA—Surplus Marketing administra-  
tion.

SPAB—Supply, Priorities and Alloca-  
tions board.

SSB—Social Security board.

SSS—Selective Service system.

TVA—Tennessee Valley authority.

VA—Veterans' administration.

WPA—Works Projects administration.



# Trade Marks and Slogans

Many seedsmen, as well as manufacturers, have spent years in building up a demand for their trade-marked merchandise and buyers have acquired the habit of calling for these brands. Sometimes a buyer will not remember the name of the manufacturer or seedsmen who produces a certain brand. This alphabetical list of trade-marked brands should prove useful in such cases. These trade marks and slogans are printed as sent to us by seedsmen and manufacturers who advertise in this book. The publisher assumes no responsibility. For names of firms using trade marks not listed here, write us.

**A. B. C. Supreme Quality**—bulbs and nursery stock—American Bulb Co., Chicago, Ill.

**A. B. Lyman**—alfalfa seed—Peppard Seed Co., Kansas City, Mo.

**"A Century of Service to Plant Growers"**—F. Haubensak Sons, St. Louis, Mo.

**"A Hawkeye Field Means A Bumper Yield"**—field seeds—Hamilton Seed & Coal Co., Cedar Rapids, Iowa.

**Acme**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Aero**—field & garden seeds—Griswold Seed & Nursery Co., Lincoln, Nebr.

**Always No. 1 Grade**—farm seeds—Funk Bros. Seed Co., Bloomington, Ill.

**"American Bulbs—Superior Quality"**—flower bulbs—George Lawler, Tacoma, Wash.

**Anchor Brand**—field and garden seeds—Arthur R. Cone, Buffalo, N. Y.

**Antelope**—seeds—Nebraska Seed Co., Omaha, Nebr.

**A Premium Grade that Does Not Cost a Premium**—field seeds—Davenport Seed Co., Davenport, Iowa.

**Arco Brand**—field and garden seeds—Arthur R. Cone, Buffalo, N. Y.

**As good as Grow for you to sow**—garden seeds—Burrell Seeds, Inc., Rocky Ford, Colo.

**"Asgrow—Seeds for Garden and Lawn"**—garden seeds—Associated Seed Growers, Inc., New Haven, Conn.

**"At Your Service Since 1896"**—garden, field and flower seeds—The Page Seed Co., Greene, N. Y.

**Avalon Brand**—seeds—Rex D. Pearce, Moorestown, N. J.

**Banner**—seeds—Corneli Seed Co., St. Louis, Mo.

**Barteldes**—field & garden seeds—Barteldes Seed Co., Lawrence, Kan.

**Beakon**—"A Safe Guide to Better Crops"—field seeds—Gooding Seed Co., Gooding, Idaho.

**"Bear our Name and Brand, Arco"**—field and garden seeds—Arthur R. Cone, Buffalo, N. Y.

**Beaver Brand**—seeds—Sommer Bros. Seed Co., Pekin, Ill.

**Beaver**—timothy seed—Steele, Briggs Seed Co., Toronto, Ont., Canada.

**Bee Hive**—hardy Utah alfalfa seed—Peppard Seed Co., Kansas City, Mo.

**"Belt's Better Grasses"**—The Belt Seed Co., Inc., Baltimore, Md.

**"Be Satisfied—Use Brent's Premium Seeds"**—C. S. Brent Seed Co., Lexington, Ky.

**"Best at any Price"**—seeds—Keller Seed Store, Shawnee, Okla.

**"Better Be Safe Than Sorry"**—field seeds—Ross Seed Co., Louisville, Ky.

**"Better Seeds, Better Crops"**—Ouren Seed Co., Council Bluffs, Iowa.

**Big Chief**—field seeds—Northwestern Seed Co., Keokuk, Iowa.

**Blackfoot Brand**—alfalfa—Idaho Grimm Alfalfa Seed Growers Assn., Blackfoot, Idaho.

**"Blizzard Belt Seeds are the Best for All Climates"**—garden seeds—Burgess Seed & Plant Co., Galesburg, Mich.

**Blood Tells**—garden seeds—Rogers Bros. Seed Co., Chicago, Ill.

**Blue Label**—dahlia roots—Wayland Dahlia Gardens, Wayland, Mich.

**Blumont Brand**—field seeds—Blue Mountain Seed Growers Assn., La Grande, Ore.

**Bow Brand**—field seeds—Bowman Seed Co., Concordia, Kan.

**"Bred—Not Just Grown"**—garden seeds—Associated Seed Growers, Inc., New Haven, Conn.

**Brent's Premium**—field and garden seeds—C. S. Brent Seed Co., Lexington, Ky.

**Brookside**—lawn grass seed—Peppard Seed Co., Kansas City, Mo.

**"Brown's Tested Seeds—They Grow"**—garden seeds—Alfred J. Brown Seed Co., Grand Rapids, Mich.

**Buckeye**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Buist's Prize Medal**—garden seeds—Robt. Buist Co., Philadelphia, Pa.

**Burpeeana**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.

**"Burpee's Seeds Grow"**—W. Atlee Burpee Co., Philadelphia, Pa.

**"Buy at the Source of Supply"**—alfalfa seed—Lakin Seed Co., Miles City, Mont.

**"California's Best Flower Seeds"**—flower seeds—Wm. Macdonald Seed Co., Santa Maria, Calif.

**"California's Choicest Flower Seed Since 1890"**—Bodger Seeds, Ltd., El Monte, Calif.

**Capitol Brand Seeds**—field seeds and feeds—Capitol Fuel, Feed & Seed Co., Phoenix, Ariz.

**Carlson Brand**—field seeds—Roscoe J. Carl & Son, Lansing, Mich.

**Casco**—field and garden seeds—Cuff-Archias Seed Co., Brawley, Calif.

**Cloister**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.

**Columbia Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.

**Compass Brand**—field seeds—Davenport Seed Co., Davenport, Iowa.

**Condon's Sure Crop Seeds. None Better at Any Price. Condon's Seeds Satisfy**—Condon Bros. Seedsmen, Rockford, Ill.

**Corn Belt**—field seeds—Northwestern Seed Co., Keokuk, Iowa.

**Cream of the Crop**—field seed, sun cured and field ripened blue grass—Peppard Seed Co., Kansas City, Mo.

**Crebent**—lawn seed—The Chas. H. Lilly Co., Seattle, Wash.

**Crescent**—lawn seed—The Chas. H. Lilly Co., Seattle, Wash.

**"Crosman's Famous Seeds for more than A Hundred Years"**—flower, vegetable and grass seeds—Crosman Seed Co., East Rochester, N. Y.

**Crystal**—field seeds—Cargill, Inc., Minneapolis, Minn.

**Dakota Leader Brand**—field seeds—Valter-Christiansen Co., Minot, N. D.

**Daehnfeldt's Original Seeds**—garden seeds—L. Daehnfeldt, Ltd., Odense, Denmark.

**DeLuxe Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.

**Donley "Super Cleaned"**—field and lawn seeds—J. L. Donley & Bro., Ashland, Ohio.

**Duryea's Central Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.

**Eagle**—alsike seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.

**Echo Brand**—field seeds—Purcell Seed Co., Evansville, Ind.

**Eclipse**—field seeds—Keller Seed Store, Shawnee, Okla.

**Embro**—popcorn—Ed F. Mangelsdorf & Bro., Inc., St. Louis, Mo.

**Emerald**—field seeds—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.

**Emerald**—lawn seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Ermine**—timothy seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.

**Estate**—lawn seed—Wm. G. Scarlett & Co., Baltimore, Md.

**Evergreen**—farm seeds—The Chas. H. Lilly Co., Seattle, Wash.

**"Every shipment backed by Hurff reputation"**—vegetable seeds—Edgar F. Hurff Co., Swedesboro, N. J.

**Evergreen**—lawn dressing—Robert Nicholson Seed Co., Dallas, Texas.

**"Everything for the Garden but the Rain"**—seeds—The J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Falcon**—field seeds—Cargill, Inc., Minneapolis, Minn.

**"Famous for Purity and Vitality"**—garden seeds—Robert Buist Co., Philadelphia, Pa.

**Fargo Seed House**—field, garden seeds, seed grain—Magill & Co., Fargo, N. D.

**"Farmers Know Seed That Grow"**—field and garden seeds—Arthur R. Cone, Buffalo, N. Y.

**Far West**—field seeds—Jenks-White Seed Co., Salem, Ore.

**Ferry's Seeds**—field and garden seeds—Ferry-Morse Seed Co., Detroit, Mich.

**"Fewer—But Better Varieties"**—garden seeds—Zwaan & Van der Molen, Voorburg, Holland.

**"Fine Flowerseeds for Over a Century"**—seeds—F. Haubensak Sons, St. Louis, Mo.

**"53 Years' Faithful Service"**—field seeds—E. F. Sanguinetti, Yuma, Ariz.

**Flawn**—lawn seed mixture, especially for the South—F. H. Woodruff & Sons, Inc., Milford, Conn.

**Floradale**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.

**"Flower Seeds of Proven Quality"**—seeds—Buckman, Denholm & Holden Seed Co., Lompoc, Calif.

**"For the Good of the Country"**—field and grass seed—Seaboard Seed Co., Philadelphia, Pa.

**Fordhook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.

**"For Land Sake Buy Land O'Lakes Seeds"**—Land O'Lakes Creameries, Inc., Minneapolis, Minn.

**"Forty Years the Best"**—field seeds—Ross Seed Co., Louisville, Ky.

**Funk Farms**—field seeds—Funk Bros. Seed Co., Bloomington, Ill.

**Funk's**—soybean feeds—Funk Bros. Seed Co., Bloomington, Ill.

**G Hybrids**—Funk Bros. Seed Co., Bloomington, Ill.

**Gilbert's Dependable Seed**—field and garden seed—D. H. Gilbert Seed Co., Inc., Monticello, Fla.

**Gilt Edge Brand**—seeds—National Seed Co., Louisville, Ky.

**Gladflower**—flower seeds—W. Atlee Burpee Co., Philadelphia, Pa.

- Globe Brand**—specialty feeds and bird seeds—The Albert Dickinson Co., Chicago, Ill.
- Gold**—field seeds—The Ackerman Co., Lima, Ohio.
- Goldinhart**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.
- Gold Medal**—field seeds—the sure growing kind—Louisville Seed Co., Louisville, Ky.
- Gold Standard**—red top seed—J. M. Schultz Seed Co., Dieterich, Ill.
- Gramercy Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Greenblade Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.
- Green Mantle Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.
- Greene Park**—lawn grass seed—The Page Seed Co., Greene, N. Y.
- Greenway**—lawn seed—Wm. G. Scarlett & Co., Baltimore, Md.
- Gro-Green Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.
- "Growers of California and Colorado Seeds"**—vine seeds—Lawrence Robinson & Sons, Modesto, Calif.
- Growers of "Merit" Flower Seeds**—Waller-Franklin Seed Co., Guadalupe, Calif.
- "Grown Where Dahlias Grow Best"**—dahlias—Wayland Dahlia Gardens, Wayland, Mich.
- "Hardy High Altitude Grown Seeds"**—garden and vine seeds—Burrell Seeds, Inc., Rocky Ford, Colo.
- Hart's**—garden and flower seeds—Chas. C. Hart Seed Co., Wethersfield, Conn.
- Harvest**—field seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Hawk**—alsike seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.
- Hawkeye**—field seeds—Hamilton Seed & Coal Company, Cedar Rapids, Iowa.
- Haymaker**—field seed—Peppard Seed Co., Kansas City, Mo.
- "Heart of the Clover District"**—farm seeds—The Ackerman Co., Lima, Ohio.
- "Highest Quality Vine Seeds"**—seeds—H. D. Garwood Seed Co., Rocky Ford, Colo.
- Honor**—field seeds—Stanford Seed Co., Buffalo, N. Y.
- Hoosier-Crost**—hybrid seed corn—Edw. J. Funk & Sons, Kentland, Ind.
- Hormolawn**—lawn seed—Seaboard Seed Co., Philadelphia, Pa.
- Horseshoe**—seeds—Corneli Seed Co., St. Louis, Mo.
- "Hungarian Grown Seeds"**—field seeds—Hungarian Farmers Co-op. Ass'n., Budapest, Hungary.
- Hurff**—garden seeds—Edgar F. Hurff Co., Swedesboro, N. J.
- Idaho Grown Seeds**—field seeds—Edgar L. Oakes & Co., Caldwell, Idaho.
- Imperial**—lawn seed—Philadelphia Seed Co., Philadelphia, Pa.
- Irish Green**—lawn grass seed—Peppard Seed Co., Kansas City, Mo.
- "It Pays to Sow 'Em"**—field seeds—Ross Seed Co., Louisville, Ky.
- Jacques**—sweet corn—Jacques Seed Co., Prescott, Wis.
- Judge Brand**—field seeds—Purcell Seed Co., Evansville, Ind.
- K**—brand seeds—Geo. Keller & Sons, Quincy, Ill.
- "Kelly's Seeds Grow"**—field seeds—Kelly Seed Co., Peoria, Ill.
- Keystone**—seeds—Corneli Seed Co., St. Louis, Mo.
- Kingscrost**—hybrid corn—Northrup, King & Co., Minneapolis, Minn.
- "King's K-Brand Seeds Are Reliable"**—field and garden seeds—H. C. King & Sons, Battle Creek, Mich.
- "Known for Reliability Since 1888—Old Gold Brand Seeds"**—L. L. Olds Seed Co., Madison, Wis.
- Knox's Quality**—farm and garden seeds—Paramount Seed Co., Stockton, Calif.
- Lago**—garden and field seeds—F. Lagomarsino & Sons, Sacramento, Calif.
- "Largest Seed House Below Sea Level"**—field and garden seeds—Cuff-Archias Seed Co., Brawley, Calif.
- La. Grown Seeds**—field seeds—W. T. Nolin, Hamburg, La.
- Land o' Lakes**—field seeds—Land o' Lakes Creameries, Inc., Minneapolis, Minn.
- Lake of the Woods Brand**—field seeds—Northern Field Seed Co., Winona, Minn.
- Leonard's Seeds**—Michael-Leonard Seed Co., Sioux City, Iowa.
- Liberty**—field seeds—Stanford Seed Co., Buffalo, N. Y.
- Lilly's**—farm and garden seeds—The Chas. H. Lilly Co., Seattle, Wash.
- "Lilly's Purity-Sealed Seeds"**—field and garden seeds—The Chas. H. Lilly Co., Seattle, Wash.
- Lion Brand**—red clover seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.
- Lone Star**—bulbs—American Bulb Co., Chicago, Ill.
- M**—all seeds—Ed. F. Mangelsdorf & Bro., Inc., St. Louis, Mo.
- "M Brand Seeds Are Selected for Quality"**—field seeds—Ed. F. Mangelsdorf & Bro., Inc., St. Louis, Mo.
- Marvelawn**—grass seed—The Page Seed Co., Greene, N. Y.
- Master Farm Seeds Brand**—field seeds—Farmer Seed & Nursery Co., Faribault, Minn.
- Maybell**—pure field seeds—Ross Seed Co., Louisville, Ky.
- McCullough's Seeds**—seeds—The J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- Merit**—flower seed—Waller-Franklin Seed Co., Guadalupe, Cal.
- Milford**—grass seed—F. H. Woodruff & Sons, Inc., Milford, Conn.
- Milford Green**—lawn seed mixture—F. H. Woodruff & Sons, Inc., Milford, Conn.
- Minhybrid No. 250**—Japanese Hulless Pop Corn—Farmer Seed & Nursery Co., Faribault, Minn.
- Minrol**—Soy Meal—soybean feed—Funk Bros. Seed Co., Bloomington, Ill.
- National Farm (wholesale) Seed Distributors**—seeds—Advance Seed Co., San Francisco, Calif.
- NBSco Brand**—field seeds—N. Bonahoom Seed Co., Hastings, Neb.
- Newday**—farm and feed seeds—Newday Seeds, Inc., Fargo, N. D.
- New Idea Brand**—feed—Purcell Seed Co., Evansville, Ind.
- Nicholson's**—garden, field and flower seeds—Robt. Nicholson Co., Dallas, Texas.
- Nord**—farm seeds—Twin City Seed Co., Minneapolis, Minn.
- "Northern Grown Farm Seeds"**—Cargill, Inc., Minneapolis, Minn.
- Northland Brand**—farm seeds—Northrup, King & Co., Minneapolis, Minn.
- Old English**—lawn seed—Philadelphia Seed Co., Philadelphia, Pa.
- Old Gold**—field, flower and garden seeds—L. L. Olds Seed Co., Madison, Wis.
- Old Homestead**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.
- Old Orchard Brand**—seeds—Rex D. Pearce, Moorestown, N. J.
- Olds**—field seeds—L. L. Olds Seed Co., Madison, Wis.
- O & M**—field, garden, lawn seeds and seed grains—O & M Seed Co., Green Springs, Ohio.
- "O & M Northern Grown Seed Corn and Seed Oats Always Give Best Results"**—field seeds—O & M Seed Co., Green Springs, Ohio.
- Olympic Brand**—true Colonial Bent—The Chas. H. Lilly Co., Seattle, Wash.
- Oregon Certified Brand**—bent grass seed—Lewis & Clark Seed Co., Astoria, Ore.
- Oriole**—field and bird seeds—Wm. G. Scarlett & Co., Baltimore, Md.
- Orisco Seeds**—grown in Japan and China—Oriental Seeds & Plants Co., San Francisco, Calif.
- Oscro Brand**—field seeds—Ouren Seed Co., Council Bluffs, Iowa.
- "Our Business Is Growing"**—garden seeds—Waldo Rohnert Co., Gilroy, Calif.
- "Our Seeds Grow Friends"**—seeds—The J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- P**—field seeds—A. S. Paterson & Coy, Ltd., Dunedin, New Zealand.
- "Page's Standard Quality Seeds"**—garden, field and flower seed—The Page Seed Co., Greene, N. Y.
- Paramount**—field and garden seeds—Paramount Seed Co., Stockton, Calif.
- Pa-Se-Co**—seed corn—The Page Seed Co., Greene, N. Y.
- Patriot Brand**—lawn and farm seeds—Seaboard Seed Co., Philadelphia, Pa.
- Peak of Perfection**—field and garden seeds—Paramount Seed Co., Stockton, Calif.
- Pedrick's**—high quality seeds—George R. Pedrick & Sons, Pedricktown, N. J.
- Pep**—lawn grass seed—Peppard Seed Co., Kansas City, Mo.
- Pep Pop**—popcorn—Peppard Seed Co., Kansas City, Mo.
- Pepseco**—"Cream of the Crop" field seeds—Peppard Seed Co., Kansas City, Mo.
- Perfection**—field seed—Geo. P. Sexauer & Son, Brookings, S. D.
- Permaturf**—lawn seed—Twin City Seed Co., Minneapolis, Minn.
- Pilgrim Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.
- Pine Tree**—farm seeds—The Albert Dickinson Co., Chicago, Ill.
- "Pioneer Seed Growers"**—garden seeds—The Kimberlin Seed Co., San Jose, Calif.
- "Plant Hart's Seeds"**—garden seeds—The Chas. C. Hart Seed Co., Wethersfield, Conn.
- "Plant Page's Seeds—They Grow"**—garden, field and flower seeds—The Page Seed Co., Greene, N. Y.
- Platte**—seeds—Nebraska Seed Co., Omaha, Nebr.
- Pride**—hybrid seed corn—Twin City Seed Co., Minneapolis, Minn.
- Pride of the North**—farm and lawn seeds—Twin City Seed Co., Minneapolis, Minn.
- Puget Sound Brand**—seeds—Leckenby Seed Co., Seattle, Wash.
- Pure Bred Seeds Brand**—garden seeds—Condon Bros. Seedsmen, Rockford, Ill.
- "Pure Tested Seeds"**—Holmes Seed Co., Canton, Ohio.
- Puritan**—blue grass seed—Sphar & Gay Seed Co., Winchester, Ky.
- Purity**—field, flower and garden seed—Robt. Nicholson Seed Co., Dallas, Texas.
- "Purity and Reliability Since 1907"**—seeds—J. P. Snapp & Sons, Limestone, Tenn.
- P-WSCO**—garden seeds—Pieters-Wheeler Seed Co., Gilroy, Calif.
- Quaker**—field seeds—Philadelphia Seed Co., Philadelphia, Pa.
- Quality Seeds**—field seeds—Stollers Seed House, Paulding, Ohio.

**"Quality Seeds That Grow"**—field and garden seeds—Valker-Christensen Co., Inc., Minot, N. D.

**Queen City**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Quicklawn Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.

**Rbest Feeds Brand**—feeds—The Bowman Seed Co., Concordia, Kans.

**"Red Top People—Tip Top Sales"**—seeds Shultz Seed Co., Olney, Ill.

**Regal Brand**—seeds—Rudy-Patrick Seed Co., Kansas City, Mo.

**Reliable**—field seed—J. M. Schultz Seed Co., Dieterich, Ill.

**Reliable Seeds Brand**—garden seeds—Waldo Rohnert Co., Gilroy, Calif.

**"Reliable Seed for the South Since 1900"**—field seed—R. E. Lambert & Sons, Darlington, Ala.

**Rex Brand**—seeds—Rudy-Patrick Seed Co., Kansas City, Mo.

**Robin-Seeds**—vine seeds—Lawrence Robinson & Sons, Modesto, Calif.

**Rob-See-Co**—garden seeds and seed corn—J. C. Robinson Seed Co., Waterloo, Nebr.

**Rohco Brand**—lettuce seed—Waldo Rohnert Co., Gilroy, Calif.

**Royal**—field and grass seeds—Rudy-Patrick Seed Co., Kansas City, Mo.

**Santa Barbara Seed Beans**—McCrea Seed Co., Santa Barbara, Calif.

**Scott's**—lawn seed—O. M. Scott & Sons Co., Marysville, Ohio.

**Security**—field seeds—Cargill, Inc., Minneapolis, Minn.

**"Seedsmen For Over a Century"**—garden and lawn seeds, bulbs—Robt. Buist Co., Philadelphia, Pa.

**"Seed With a Background"**—pepper and tomato seed—Joseph White Co., Bridgeton, N. J.

**"Seeds of Rare Plants"**—seeds—Rex D. Pearce, Moorestown, N. J.

**"Seeds That Grow"**—W. Atlee Burpee Co., Philadelphia, Pa.

**"Seeds That Grow"**—garden, field and flower seeds—The Chas. C. Hart Seed Co., Wethersfield, Conn.

**"Seeds That Succeed"**—garden, field and lawn seed—S. D. Woodruff & Sons, Inc., Orange, Conn.

**"Seeds That Grow, Need Any?"**—Neb-raska Seed Co., Omaha, Nebr.

**Service First Brand**—field seeds—International Seed, Inc., New York, N. Y.

**Shaditurf**—lawn seed—Twin City Seed Co., Minneapolis, Minn.

**Shady Lawn Brand**—lawn grass seed mixture—Associated Seed Growers, Inc., New Haven, Conn.

**Shady Nook**—lawn seed—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Shady Spot**—lawn grass mixture—Duryea Seed Co., Inc., New York, N. Y.

**"Shurco Seed Sure Success"**—garden seeds—The John Mosbell Co., New York, N. Y.

**S & S (Service & Satisfaction)**—field and garden seeds—Shuler & Smoak, Orangeburg, S. C.

**Sioux**—field, garden and flower seeds—Michael-Leonard Seed Co., Sioux City, Iowa.

**Six Green Stripes**—blue grass seed—Nebraska Seed Co., Omaha, Nebr.

**Skagit Valley Brand**—garden seeds—J. A. Boyce Co., Mt. Vernon, Wash.

**Solar Brand**—field seeds—Henry Hirsch & Sons, Inc., Toledo, Ohio.

**Soo-Bred**—bantam sweet corn—Michael-Leonard Seed Co., Sioux City, Iowa.

**Sterling**—farm seeds and feeds—Northrup, King & Co., Minneapolis, Minn.

**"Stollers' Quality Seed For All Your Needs"**—Stollers Seed House, Paulding, Ohio.

**Stork**—field seeds—Cargill, Inc., Minneapolis, Minn.

**Suburban**—lawn seed—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**"Suc-Seed with Page's Seeds"**—field, flower and garden seeds—The Page Seed Co., Greene, N. Y.

**"Suhrc Seed Sure Success"**—garden seeds—John Mosbell Co., New York, N. Y.

**Sunnybrook**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.

**Sunrise Brand**—strawberry clover—The Chas. H. Lilly Co., Seattle, Wash.

**Superior**—lawn grass mixture—Duryea Seed Co., Inc., New York, N. Y.

**Superfine Brand**—lawn seed—The J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Supreme**—seed grain, corn and grass seeds—Goldberg Seed & Feed Co., Fargo, N. D.

**Sterling Brand**—farm seeds—Northrup, King & Co., Minneapolis, Minn.

**S-X Brand**—seeds—Geo. P. Sexauer & Son, Brookings, S. D.

**"Tested Radway Seeds—Always Dependable"**—seeds—I. L. Radwaner Seed Co., Inc., New York, N. Y.

**"The Best in Seed Corn"**—C. S. Clark & Sons, Wakeman, Ohio.

**"The Oldest & Largest Seed House in the South"**—T. W. Wood & Sons, Richmond, Va.

**"The Sure Growing Kind"**—field seeds—Louisville Seed Co., Inc., Louisville, Ky.

**"They Grow Better—They Yield Better"**—seeds—Walter S. Schell, Inc., Harrisburg, Pa.

**Thor-o-Brand**—seeds—Law, Sommer Pty., Ltd., Melbourne, Australia.

**Tiger**—red clover seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.

**"Tiger Brand Seeds for All Your Needs"**—seeds—Sommer Bros. Seed Co., Pekin, Ill.

**T-N-T Pop Corn**—The Barteldes Seed Co., Lawrence, Kans.

**Top Flight Bantam**—hybrid sweet corn—Michael-Leonard Seed Co., Sioux City, Iowa.

**Trinity Brand**—field and grass seed—The Belt Seed Co., Inc., Baltimore, Md.

**Tru-Green**—lawn seed—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Truval**—field seeds of true value—Purcell Seed Co., Evansville, Ind.

**Turfmaker**—lawn seed mixture—F. H. Woodruff & Sons, Inc., Milford, Conn.

**Utryit**—seeds—Nebraska Seed Co., Omaha, Nebr.

**Valley**—seeds—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**Value Brand**—field seeds—Henry Hirsch & Sons, Inc., Toledo, Ohio.

**Vaughan's**—field, garden and grass seeds, and bulbs—Vaughan's Seed Store, Chicago, Ill.

**Village Green**—lawn grass mixtures—Duryea Seed Co., Inc., New York, N. Y.

**Wab**—seeds—W. Atlee Burpee Co., Philadelphia, Pa.

**Waller's**—flower seeds—Waller-Franklin Seed Co., Guadalupe, Calif.

**Washington Park**—lawn seed—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**W.D.G. Blue Label Dahlias**—Grown where Dahlias grow Best—Wayland Dahlia Gardens, Wayland, Mich.

**Whiz-Bang**—popcorn—J. Chas. McCullough Seed Co., Cincinnati, Ohio.

**"Wild White from Oldest Pastures"**—clover seed—Harold Saad's Seeds, Ltd., Ipswich, England.

**Wolf**—red clover seed—Steele, Briggs Seed Co., Ltd., Toronto, Ont., Canada.

**Woodco**—lawn seed mixture and grass seed—F. H. Woodruff & Sons, Inc., Milford, Conn.

**Wood's Dixie Lawn Grass**—Grows Green in Dixie Sunshine—T. W. Wood & Sons, Richmond, Va.

**Wood's Tested Seeds**—field, garden and flower seeds—T. W. Wood & Sons, Richmond, Va.

**Woodruff Seeds**—vegetable seeds and grasses—F. H. Woodruff & Sons, Inc., Milford, Conn.

**XX-1**—hybrid seed corn—Ed. F. Mangelsdorf & Bro., Inc., St. Louis, Mo.

**Yellows Resistant**—cabbage seed—Wisconsin Cabbage Seed Co., Racine, Wis.

**Yorkshire Park**—lawn grass seed—Duryea Seed Co., Inc., New York, N. Y.

**Zwaan's Snowdrift**—cauliflower seed—Zwaan & Van der Molen, Voorburg Holland.

## Allied Trades

**AA Quality**—fertilizer—American Agricultural Chemical Co., New York, N. Y.

**AA Westcoast**—raffia—McHutchison & Co., New York, N. Y.

**"Ace of Bug Killers"**—insecticide—One-Spot Co., Elkridge, Md.

**Actirote**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.

**A & D**—Peat moss stable bedding—Atkins & Durbrow, New York, N. Y.

**Aerol**—oil burning equipment—Aerol Burner Co., Inc., West New York, N. J.

**A.F.S.—Watch Us Grow**—florists' supplies—American Florists Supply Co., Chicago, Ill.

**Agate**—seed scale—Henry Troemner, Philadelphia, Pa.

**Agrico**—fertilizer—American Agricultural Chemical Co., New York, N. Y.

**"A Live Line for Live Dealers"**—garden sprays—Calif. Spray Chemical Corp., Elizabeth, N. J.

**"All the Food Your Plant Needs"**—plant food—Wm. H. Rorer, Inc., Philadelphia, Pa.

**All Purpose Hoe**—garden tools—Easy-fold Mfg., Faribault, Minn.

**Amalead**—bag seals—E. J. Brooks Co., Newark, N. J.

**American Bean and Pea Thresher**—American Grain Separator Co., Minneapolis, Minn.

**Ames**—cotton bags—Ames Bag Machine Co., Cleveland, Ohio.

**Amesaks**—cotton bags—Ames Bag Machine Co., Cleveland, Ohio.

**Annia-Germ**—fumigant insecticide—Douglas Chem. & Supply Co., Kansas City, Mo.

**Ant-B-Gon**—Ant Control—Calif. Spray Chem. Corp., Elizabeth, N. J.

**Ant Gas**—ant and mole exterminator—Hammond Paint & Chemical Co., Beacon, N. Y.

**Antrap**—ant killer—Hammond Paint & Chem. Co., Beacon, N. Y.

**Antrol**—house and garden pest controls—The A. S. Boyle Co., Jersey City, N. J.

**Antx**—repellent—Nott Mfg. Co., New York, N. Y.

**A.P.G.**—seed packets and catalog envelopes—American Paper Goods Co., Chicago, Ill.

**"A Package Sealed is a Package Saved"**—bag seals—E. J. Brooks Co., Newark, N. J.

**App-L-Set**—plant hormone—Dow Chemical Co., Midland, Mich.

**Ariens-Tiller**—harrow—Ariens Co., Brillion, Wis.

- Arrow**—peat moss—New Amsterdam Import & Supply Co., Inc., New York, N. Y.
- "A Scale for Every Seed Need"**—scales—Detecto-Gram Scales, Brooklyn, N. Y.
- B & T Creosote**—C-A-Wood Preserver Co., St. Louis, Mo.
- "Battle Creek Health Foods for Dogs"**—dog foods—Battle Creek Dog Food Co., Battle Creek, Mich.
- Bartlett**—garden and lawn tools, sprayers, tree paints—Bartlett Mfg. Co., Detroit, Mich.
- Barmanco Tree Filler**—asphalt compound—Bartlett Mfg. Co., Detroit, Mich.
- B-B**—farm and garden specialties—Ball-Biddle Co., Riverton, N. J.
- B-B Dust**—bean beetle dust—Hammond Paint & Chem. Co., Beacon, N. Y.
- Bee Brand**—insecticides and disinfectants—The McCormick Sales Co., Baltimore, Md.
- Bemis "A's"**—standard seamless seed bag of America—Bemis Bro. Bag Co., St. Louis, Mo.
- Bemis Special**—threads for machine closing of bags—Bemis Bro. Bag Co., St. Louis, Mo.
- Best on Earth**—fertilizer—Summers Fertilizer Co., Baltimore, Md.
- "Better Printing—Bigger Sales"**—printing—A. B. Morse Co., St. Joseph, Mich.
- Bighead**—sprayers—Dobbins Mfg. Co., Elkhart, Ind.
- Biotol**—sardine oil—Atkins & Durbrow, Inc., New York, N. Y.
- Bird Neponset**—flower pots, covers and earth bands—Bird & Son, Inc., East Walpole, Mass.
- Black Arrow**—insecticide—The McCormick Sales Co., Baltimore, Md.
- Black Leaf 40**—insecticide, poultry lice killer, worm remedy and dog repellent—Tobacco By-Products & Chemical Corp., Louisville, Ky.
- Black Leaf Worm Powder and Pellets**—poultry roundworm remedy—Tobacco By-Products & Chem. Corp., Louisville, Ky.
- Bordow**—insecticide—Dow Chemical Co., Midland, Mich.
- Brown**—seed packet filling machines and seed packets—Brown Bag Filling Machine Co., Fitchburg, Mass.
- Bug-Geta**—insect control—Calif. Spray Chem. Corp., Elizabeth, N. J.
- Buhler**—patented vibrationless sieve drives—S. Howes Co., Inc., Silver Creek, N. Y.
- C-A**—Wood Preserver—Carbolineum America—C-A Wood Preserver Co., St. Louis, Mo.
- Cap Brush**—roost applicator for delousing poultry—Tobacco By-Products & Chem. Corp., Louisville, Ky.
- Carbolineum America**—C-A-Wood Preserver Co., St. Louis, Mo.
- Cardinal Brand**—wild bird food and suet cake—Garden Products Co., St. Louis, Mo.
- Carter**—disc separators—Hart-Carter Co., Minneapolis, Minn.
- Cascade**—vertical seed mixers—S. Howes Co., Inc., Silver Creek, N. Y.
- Cattle Comfort**—stock spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Certified Premier**—Swedish Peat Moss—Premier Peat Moss Corp., New York, N. Y.
- Champion**—weighing and filling machines—S. Howes Co., Inc., Silver Creek, N. Y.
- Chappel's Biskits**—fresh meat biskits for dogs—Chappel Bros., Inc., Rockford, Illinois.
- Chinchola**—chinch bug exterminator—Hammond Paint & Chem. Co., Beacon, N. Y.
- Cincinnati "A"**—cotton seamless bags—J. Chas. McCullough Seed Co., Cincinnati, Ohio.
- Clipper**—seed and grain cleaning and grading equipment—A. T. Ferrell & Co., Saginaw, Mich.
- Clute**—air-lift elevators and fruit graders—Oliver Mfg. Co., St. Louis, Mo.
- Combination**—fertilizer spreader and seeder—Cyclone Seeder Co., Urbana, Ind.
- Compound Lever**—tree trimming equipment—Bartlett Mfg. Co., Detroit, Mich.
- Copper-Rotenone**—combined dust—Mechling Bros., Chemicals, Div. of General Chemical Co., Philadelphia, Pa.
- Copper Solution**—fungicide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Crinkle**—Plant covers give complete crop protection all season at the lowest cost—plant protectors—Oldmill Paper Products Corp., Long Island City, N. Y.
- Cyclone**—poultry supplies and broadcast seeder—Cyclone Mfg. Co., Urbana, Ind.
- Dandelion Killer**—weed killer—Hammond Paint & Chem. Co., Beacon, N. Y.
- Deltaseal**—small package bag closure—Bemis Bro. Bag Co., St. Louis, Mo.
- Detecto-Gram**—scales—Detecto-Gram Scales, Brooklyn, N. Y.
- Dickinson's**—dog food—The Albert Dickinson Co., Chicago, Ill.
- Disbrow**—seed bags, packets, envelopes, paper boxes—Disbrow Mfg. Co., Newark, N. J.
- DN**—dust—Dow Chemical Co., Midland, Mich.
- DN**—dry-mix—Dow Chemical Co., Midland, Mich.
- Dobbins**—dusters and sprayers—Dobbins Mfg. Co., Elkhart, Ind.
- Dog-Check**—repellent—Nott Mfg. Co., New York, N. Y.
- Dog Skat**—dog and cat repellent—Hammond Paint & Chemical Co., Beacon, N. Y.
- Dogzoff**—dog repellent—Bohlender Plant Chemicals, Inc., Tipp City, Ohio.
- Dowax**—Dow Chemical Co., Midland, Mich.
- Dowfume**—Dow Chemical Co., Midland, Mich.
- Dow Chloropicrin**—Dow Chemical Co., Midland, Mich.
- Dow Dichloroethyl Ether**—Dow Chemical Co., Midland, Mich.
- Dow Methal Bromide**—fumigant—Dow Chemical Co., Midland, Mich.
- Dowspray-Dormant**—Dow Chemical Co., Midland, Mich.
- Dragon Line**—weed killer—Parco Products Co., Allentown, Pa.
- Driconure**—fertilizer—all organic fertilizer—Atkins & Durbrow, Inc., New York, N. Y.
- Dri-Tite**—waterproof tarpaulins—Bemis Bro. Bag Co., St. Louis, Mo.
- DuBay New Improved "Ceresan"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay "Nu Green"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay 2% "Ceresan"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay "Semesan, Jr."**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay "Semesan Bel"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay "Semesan"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- DuBay Special "Semesan"**—seed disinfectant—Bayer-Semesan Co., Inc., Wilmington, Del.
- D-X**—rotenone and pyrethrum spray—B. G. Pratt Co., New York, N. Y.
- Eagle Machine Thread**—twine—Fulton Bag & Cotton Mills, Atlanta, Ga.
- Eagle Sail Twine**—twine—Fulton Bag & Cotton Mills, Atlanta, Ga.
- Easyfold**—display equipment—Easyfold Mfrg., Faribault, Minn.
- Economy**—mailing bags—Bemis Bro. Bag Co., St. Louis, Mo.
- Eezy-Wear**—garden gloves—National Glove Co., Columbus, Ohio.
- Erosionet**—for preventing soil and seed washing on lawns and terraces—Bemis Bro. Bag Co., St. Louis, Mo.
- Ethocil**—Dow Chemical Co., Midland, Mich.
- Eureka**—seed cleaners, separators and graders, lawn seed mixers, scarifiers and seed processing machinery—S. Howes Co., Inc., Silver Creek, N. Y.
- Everlastic**—glazing bedding putty—Hammond Paint & Chemical Co., Beacon, N. Y.
- Eveready**—power sprayer—Dobbins Mfg. Co., Elkhart, Ind.
- "Everything for the Dog"**—pet supplies—Spratt's Patent, Ltd., Newark, N. J.
- Exact Weight**—scales—Exact Weight Scale Co., Columbus, Ohio.
- Exadol**—cod liver oil—Atkins & Durbrow, Inc., New York, N. Y.
- Expan**—propagating pots—Paxton Products Co., Riverside, Calif.
- Expan**—tree protector—Paxton Products Co., Riverside, Calif.
- Expert Line**—grain and seed cleaners, corn sorters, hullers, scarifiers, fanning mills—Cleland Mfg. Co., Minneapolis, Minn.
- Extrax**—complete organic insecticide—Calif. Spray Chem. Corp., Elizabeth, N. J.
- Eye-Dentify**—seals—Stoffel Seals Co., Inc., Chicago, Ill.
- E-Z**—fertilizer spreader—Germain Seed & Plant Co., Los Angeles, Calif.
- Farmogerm**—inoculant—Earp-Thomas Laboratories, Bloomfield, N. J.
- Fertil-Spray**—spraying device—Hydroponic Chemical Co., Inc., New York, N. Y.
- "Field Warehousing by Douglas-Guardian"**—Douglas-Guardian Whse. Corp., Chicago, Ill.
- Filmfast**—insecticide spreader—Mechling Bros. Chemicals, Div. General Chem. Co., Philadelphia, Pa.
- Flea-not**—repellent—Nott Mfg. Co., New York, N. Y.
- Flex-Beam**—garden tool handles—Union Fork & Hoe Co., Columbus, Ohio.
- Flex-O-Glass**—glass substitute—Flex-O-Glass Mfg. Co., Chicago, Ill.
- Fly-Away**—spray—Hammond Paint & Chemical Co., Beacon, N. Y.
- Flyzoff**—fly repellent—Bohlender Plant Chemicals, Inc., Tipp City, Ohio.
- For-Get-Me-Not**—natural and colored raffia and peat moss—Julius Loewith, Inc., New York, N. Y.
- Formacide**—fungicide—Hammond Paint & Chem. Co., Beacon, N. Y.
- Four-In-One**—percentage scale—Seedburo Equipment Co., Chicago, Ill.
- Fruitone**—hormone to avoid fruit drop—American Chemical Paint Co., Ambler, Pa.
- Fultex**—waterproofed canvas tarpaulins and covers—Fulton Bag & Cotton Mills, Atlanta, Ga.
- Fulton "A"**—cotton seamless bags—Fulton Bag & Cotton Mills, Atlanta, Ga.
- Fulton's A-1**—insect spray—Plantabbs Co., Baltimore, Md.
- Fulton Brown**—tarpaulins—Fulton Bag & Cotton Mills, Atlanta, Ga.
- Fumigato**—fumigant—Douglas Chem. & Supply Co., Kansas City, Mo.



**Fun-L-Fill**—sprayers—Dobbins Mfg. Co., Elkhart, Ind.

**G & O**—resale merchandise for seed stores—Goulard & Olena, Inc., New York, N. Y.

**Galloway**—seed packets—Schmidt Lithograph Co., San Francisco, Calif.

**Garden Volck**—positive contact insecticide with Nicotine—Calif. Spray Chem. Corp., Elizabeth, N. J.

**Gardex**—garden tools—Gardex, Inc., Michigan City, Ind.

**Gard-N-Cart**—garden implement—Masters Planter Co., Benton Harbor, Mich.

**Germaco Products**—garden specialties—Germain Seed & Plant Co., Los Angeles, Calif.

**"Get it for a Song"**—bird foods—The Nature Friend, Inc., New York, N. Y.

**Geha**—fish food—Schoemann and Mayer, Inc., New York, N. Y.

**Glass-O-Net**—mesh base glass substitute—Flex-O-Glass Mfg. Co., Chicago, Ill.

**Goldena**—feeds—Goldberg Seed & Feed Co., Fargo, N. Dak.

**Gold Leaf**—tobacco powder—Tobacco By-Products & Chem. Corp., Louisville, Ky.

**Go-West**—the improved insect bait—Agricultural Laboratories, Inc., Columbus, Ohio.

**Go-West**—bait—The Chas. H. Lilly Co., Seattle, Wash.

**GPM**—granulated peat moss—Atkins & Durbrow, Inc., New York, N. Y.

**Grape and Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Greenol**—copper fungicide for mildews and other diseases—Calif. Spray Chem. Corp., Elizabeth, N. J.

**Grip-Lock**—bag seal—E. J. Brooks Co., Newark, N. J.

**Guardnet**—protecting fabric for shading plants and balling roots—Bemis Bro. Bag Co., St. Louis, Mo.

**Hall**—printers—W. F. Hall Printing Co., Chicago, Ill.

**Hammond Weed Killer**—Hammond Paint & Chem. Co., Beacon, N. Y.

**Hammond's**—insecticides, fungicides, paints and putties—Hammond Paint & Chemical Co., Beacon, N. Y.

**Handy Andy**—weed cutters—Union Fork & Hoe Co., Columbus, Ohio.

**Handy Andy Gun**—weed killer—Parco Products Co., Allentown, Pa.

**Harco**—sprayer—Germain Seed & Plant Co., Los Angeles, Calif.

**Hart**—corn grader—Hart-Carter Co., Minneapolis, Minn.

**Heinrich**—envelopes—Heinrich Envelope Co., Minneapolis, Minn.

**Heller**—store equipment—Heller & Co., Montpelier, Ohio.

**Henure**—fertilizer—Atkins & Durbrow, Inc., New York, N. Y.

**Hi-Lo-Fosphate**—soil test for available phosphates—Urbana Laboratories, Urbana, Ill.

**Hi-Wall**—tourists tents—Bemis Bro. Bag Co., St. Louis, Mo.

**Hoffer Test**—for nitrogen and potash—Urbana Laboratories, Urbana, Ill.

**Horicum Lime**—sulphur concentrate and fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Hormodin**—powders—Merck & Co., Inc., Rahway, N. J.

**Hormodin No. 1, No. 2 & No. 3 Powder**—root forming chemical—Merck & Co., Inc., Rahway, N. J.

**Hotkaps**—plant protectors—Germain Seed & Plant Co., Los Angeles, Calif.

**Howes**—equipment for seed houses—S. Howes Co., Inc., Silver Creek, N. Y.

**Humogerm**—inoculant—Earp-Thomas Laboratories, Inc., Bloomfield, N. J.

**H. W. K.**—weed killer—Hammond Paint & Chemical Co., Beacon, N. Y.

**Hydroxide**—insecticide—Mechling Bros. Chemicals, Div. of General Chemical Co., Philadelphia, Pa.

**"Hyponex grows Plants in Soil, Sand or Water"**—plant food—Hydroponic Chemical Co., Inc., New York, N. Y.

**Invincible**—bean polishers and bean cleaning and grading equipment—S. Howes Co., Inc., Silver Creek, N. Y.

**Isco Spray**—insecticide—Innis, Speiden & Co., New York, N. Y.

**Jak Tung**—trucks—Thomas Truck & Caster Co., Keokuk, Iowa.

**Japtox**—Japanese bean beetle destroyer—Mechling Bros. Chemicals, Div. of General Chem. Co., Philadelphia, Pa.

**JayBee**—world's standard grinder for capacity, economy and endurance—J. B. Sedberry, Inc., Franklin, Tenn.

**Ken-L-Biskit**—dog food of champions—Chappel Bros., Inc., Rockford, Ill.

**Ken-L-Ration**—dog food of champions—Chappel Bros., Inc., Rockford, Ill.

**Ken-L-Worth**—fresh meat dog biskit—Chappel Bros., Inc., Rockford, Ill.

**Kerosene Emulsion**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Kilmice**—repellent—Nott Mfg. Co., New York, N. Y.

**Kix**—water conditioner, spreader and sticker—Hammond Paint & Chemical Co., Beacon, N. Y.

**Kneezies**—knee pads—Salta Corp., Virginia—Rubatex Div., Jersey City, N. J.

**Krussow**—double spiral seed separator—Cleveland Mfg. Co., Minneapolis, Minn.

**Kwik-Camp**—auto tents—Bemis Bro. Bag Co., St. Louis, Mo.

**Lac-Hi-Potash**—soil test for available potassium—Urbana Laboratories, Urbana, Ill.

**Larvacide**—fumigant for insect, soil and rodents—Innis, Speiden & Co., New York, N. Y.

**Legume "Another Step Ahead"**—inoculant—Agricultural Laboratories, Inc., Columbus, Ohio.

**Leonard**—horticultural knives, nursery spades, arboricultural supplies—A. M. Leonard & Son., Piqua, Ohio.

**Lenonet**—soil fixation material—Bemis Bro. Bag Co., St. Louis, Mo.

**Life-O-Plant**—plant food—Bohlender Plant Chemicals, Inc., Tipp City, Ohio.

**Lilly's**—calf meal and dog food—The Chas. H. Lilly Co., Seattle, Wash.

**Liquid Slug Shot**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.

**Little Wonder**—hedge trimmer—Detco Mfg. Co., Oaks, Pa.

**Loma**—The perfect plant food—Tennessee Corp., New York, N. Y.

**Lyric**—mixed bird seed—Philadelphia Seed Co., Philadelphia, Pa.

**McCormick's Rotenone Dust**—dust—The McCormick Sales Co., Baltimore, Md.

**Macmillan**—garden books—The Macmillan Co., New York, N. Y.

**Magic Song Restorer**—bird foods—The Nature Friend, Inc., New York, N. Y.

**Mainstay**—twine for hand closing of bags—Bemis Bro. Bag Co., St. Louis, Mo.

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**Mash Nic**—Tobacco By-Prod. & Chem. Corp., Louisville, Ky.

**Masters**—garden implements—Masters Planter Co., Benton Harbor, Mich.

**Mechling's Scale Oil**—insecticide—Mechling Bros. Chemicals, Div. of Gen. Chem. Co., Philadelphia, Pa.

**Merck**—animal dips, disinfectants, fumigants, lice killers, seed disinfectants, fungicide—Merck & Co., Inc., Rahway, N. J.

**Metasol**—crab grass killer—Parco Products Co., Allentown, Pa.

**Michigan Peat**—Soil Sponge—"America's finest peat"—American Soil Sponge Selling Corp., New York, N. Y.

**Michigan Sedge Peat**—peat conditioner for golf courses, lawns and gardens—American Soil Sponge Selling Corp., New York, N. Y.

**Mike Sulfur**—Dow Chemical Co., Midland, Mich.

**Miller's Kibbles**—Battle Creek Health food for dogs—Battle Creek Dog Food Co., Battle Creek, Mich.

**Mix**—bean sorters—S. Howes Co., Inc., Silver Creek, N. Y.

**Morcrop**—fertilizer—The Chas. H. Lilly Co., Seattle, Wash.

**Mor-Les-Nitrate**—soil test for nitrates—Urbana Laboratories, Urbana, Ill.

**Mosquitozoff**—mosquito exterminator—Bohlender Plant Chemicals, Inc., Tipp City, Ohio.

**Mt. Beacon**—green shading—Hammond Paint & Chemical Co., Beacon, N. Y.

**Myers**—sprayers—F. E. Myers & Bro. Co., Ashland, Ohio.

**Naptoside**—insecticide and soil fumigant—Hammond Paint & Chem. Co., Beacon, N. Y.

**"Nation Wide Service"**—Stecher-Traung Lithograph Corp., Rochester, N. Y.

**Neponset**—flower pots, flower pot covers and earth bands—Bird & Son, Inc., East Walpole, Mass.

**Nico-Fume Liquid**—greenhouse spray and fumigant—Tobacco By-Products & Chem. Corp., Louisville, Ky.

**Nico-Fume Powder**—greenhouse fumigant—Tobacco By-Products & Chem. Corp., Louisville, Ky.

**Nicotine Soap**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Nicotrol**—aphicide—Kay-Fries Chemicals, Inc., New York, N. Y.

**Nitragin**—soil and legume inoculator—Nitragin Co., Inc., Milwaukee, Wis.

**"Nitragin—the oldest and most widely used inoculator in America"**—inoculator—The Nitragin Co., Inc., Milwaukee, Wis.

**No Crow**—crow repellent—Hammond Paint & Chem. Co., Beacon, N. Y.

**Nod-O-Gen**—pretested inoculator—The Albert Dickinson Co., Chicago, Ill.

**Nursery Volck**—foliage oil spray—Calif. Spray Chem. Corp., Elizabeth, N. J.

**Nu-Vim**—Vitamin B<sub>1</sub> tablets and liquid—Garden Products Co., St. Louis, Mo.

**O.K.**—poultry litter—Atkins & Durbrow, Inc., New York, N. Y.

**Old English**—liquid putty—Hammond Paint & Chemical Co., Beacon, N. Y.

**Old English**—sheep manure—Philadelphia Seed Co., Philadelphia, Pa.

**Old English**—turf builder and plant food—Philadelphia Seed Co., Philadelphia, Pa.

**Old English Lawn Klenser**—Japanese beetle exterminator—Philadelphia Seed Co., Philadelphia, Pa.

**Oliver**—gravity separators, corn graders, aspirators, seed treaters, bag cleaners, shaking shoes and portable electric blowers—Oliver Mfg. Co., St. Louis, Mo.

**One-Spot**—flea killer, insecticide—One Spot Co., ElkrIDGE, Md.

**Original**—greenhouse white paint—Hammond Paint & Chem. Co., Beacon, N. Y.

**Oriole**—pigeon feeds—Wm. G. Scarlett & Co., Baltimore, Md.

**Ortho**—scientific pest control—Calif. Spray Chem. Corp., Elizabeth, N. J.

**Paradow**—Dow Chemical Co., Midland, Mich.



**Parnox**—weed killer—Parco Products Co., Allentown, Pa.  
**Peat O'Maine**—garden and poultry peat moss (Maine)—Atkins & Durbrow, Inc., New York, N. Y.  
**Peerless**—gunning asbestos asphaltum—Hammond Paint & Chemical Co., Beacon, N. Y.  
**Peerless**—poultry feed—Geo. P. Sexauer & Son, Brookings, S. Dak.  
**Penetrol**—spreader nicotine, lead arsenate—Kay Fries Chemicals, Inc., New York, N. Y.  
**Perfection**—dog and fox food—Perfection Foods Co., Battle Creek, Mich.  
**Perfection Coliverol**—powdered cod liver oil—Perfection Foods Co., Battle Creek, Mich.  
**Perfecto-Sote**—C-A-Wood Preserver Co., St. Louis, Mo.  
**Perfect Dispersion**—aluminum paint for greenhouse use—Hammond Paint & Chem. Co., Beacon, N. Y.  
**Pest-Kit**—kit containing material to combat insects and diseases—Hammond Paint & Chemical Co., Beacon, N. Y.  
**Pioneer**—garden and poultry peat moss (Ontario, Canada)—Atkins & Durbrow, Inc., New York, N. Y.  
**Plant Dinner**—plant food—Wm. H. Rorer, Inc., Philadelphia, Pa.  
**Plantabbs**—plant food and fertilizer—Plantabbs Corp., Baltimore, Md.  
**Plasti Chrome**—garden tools—Union Fork & Hoe Co., Columbus, Ohio  
**Post-O-Meter Scales**—Detecto-Gram Scales, Brooklyn, N. Y.  
**Pratt**—sprays—B. G. Pratt Co., New York, N. Y.  
**Premier**—Vacuum Cleaned Certified Swedish Peat Moss—Premier Peat Moss Corp., New York, N. Y.  
**"Printed Salesmakers"**—printing—A. B. Morse Co., St. Joseph, Mich.  
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**Pyrote**—non-poisonous double acting insecticide—Mechling Bros. Chemicals, Philadelphia, Pa.  
**Racine**—fanning mill type seed cleaners—S. Howes Co., Inc., Silver Creek, N. Y.  
**Rat-Nots**—repellent—Nott Mfg. Co., New York, N. Y.  
**Rat-X**—rat exterminator—Douglas Chem. & Supply Co., Kansas City, Mo.  
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**Roach Flakes**—"It Get's 'Em" for roaches and waterbugs—Agricultural Laboratories, Inc., Columbus, Ohio  
**Rodopell**—bulb protector against moles, rats, mice, etc.—Atkins & Durbrow, Inc., New York, N. Y.  
**Rootone**—the Hormone Powder—root stimulant, seed and bulb stimulant and fungicide—American Chemical Paint Co., Ambler, Pa.  
**Root Quality**—bee supplies—A. I. Root Co., Medina, Ohio  
**Rose Dust**—fungicide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Rotenone Dust**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.  
**Rotenone "400"**—insecticide—Mechling Bros. Chemicals, Div. General Chem. Co., Philadelphia, Pa.  
**Rotenone "75"**—insecticide—Mechling Bros. Chemicals, Div. of Gen. Chem. Co., Philadelphia, Pa.  
**Royal River**—seamless cotton bags—Royal River Mills, Inc., Baltimore, Md.  
**Sacco**—fertilizer, plant food, fertilizer spreader and seeder—Smith Agricultural Chemical Co., Columbus, Ohio.  
**Sanahide**—mange lotion—Schoemann and Mayer, Inc., New York, N. Y.  
**Scalecide**—dormant spray—B. G. Pratt Co., New York, N. Y.  
**Scram**—dog repellent—Calif. Spray Chem. Corp., Elizabeth, N. J.  
**Screen-Glass**—plastic covered wire cloth—Flex-O-Glass Mfg. Co., Chicago, Ill.  
**Seal Brand Packet**—seed packets—The Disbrow Mfg. Co., Newark, N. J.  
**"Sealed-Brooks"**—bag seals—E. J. Brooks Co., Newark, N. J.  
**"Seed Worth Planting is Worth Treating"**—DuBay Products—Bayer-Semesan Co., Inc., Wilmington, Del.  
**Seedburo Quality**—grain, seed and flour grading equipment—Seedburo Equipment Co., Chicago, Ill.  
**Shadowgraph**—scale—Exact Weight Scale Co., Columbus, Ohio  
**Sho-Gro**—seed germinators—Seedburo Equipment Co., Chicago, Ill.  
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**Slug Shot**—insecticide in dust form—Hammond Paint & Chemical Co., Beacon, N. Y.  
**Sodus Acid Humus**—humus—Soilmaster Co., Berrien Springs, Mich.  
**"Soil-Flow"**—garden tools—Gardex, Inc., Michigan City, Ind.  
**Soilmaster**—plant food—Soilmaster Co., Berrien Springs, Mich.  
**Soil Sponge**—"America's finest peat product"—American Soil Sponge Selling Corp., New York, N. Y.  
**Sorbex**—moss peat—Atkins & Durbrow, Inc., New York, N. Y.  
**Spear**—envelopes—Heinrich Envelope Co., Minneapolis, Minn.  
**Speedline**—garden tools—Union Fork & Hoe Co., Columbus, Ohio.  
**Spor-Gro**—copper mildew spray powder—Mechling Bros. Chemicals, Div. of General Chem. Co., Philadelphia, Pa.

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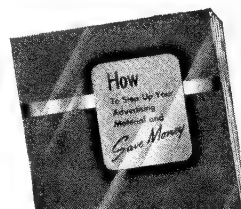


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**Stabilized Rotenone Dust**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Standard Fanning Mill**—fanning mill—Standard Fanning Mill Co., Minneapolis, Minn.

**Stand-Bilt**—jar fount—Cyclone Mfg. Co., Urbana, Ind.

**Stanley's**—crow repellent—Cedar Hill Formulae Co., New Britain, Conn.

**Stim-U-Plant**—"The modern Plant Food Tablet"—Agricultural Laboratories, Inc., Columbus, Ohio.

**"Stoffel Seals—they Seal and Sell"**—seals—Stoffel Seals Co., Chicago, Ill.

**Stop That Rot**—wood preserver—C-A-Wood Preserver Co., St. Louis, Mo.

**Storm King**—greenhouse white paint and white glazing compound—Hammond Paint & Chemical Co., Beacon, N. Y.

**Styron**—Dow Chemical Co., Midland, Mich.

**Sulfocide**—fungicide—B. G. Pratt Co., New York, N. Y.

**Sulrote**—dusting mixture, insecticide and fungicide—Mechling Bros. Chemicals, Div. of Gen. Chem. Co., Philadelphia, Pa.

**Summers**—fertilizer—Summers Fertilizer Co., Baltimore, Md.

**Sunray**—plant cover—Paxton Products Co., Riverside, Calif.

**Superbilt**—sprayers and dusters—Dobbins Mfg. Co., Elkhart, Ind.

**Super-Copper**—fungicide—Hammond Paint & Chem. Co., Beacon, N. Y.

**Superior**—grain and seed cleaning machinery—Superior Separator Co., Minneapolis, Minn.

**Superior Scale Oil-spray**—Mechling Bros. Chemicals, Div. of Gen. Chem. Co., Philadelphia, Pa.

**Sure Shot**—concentrated pyrethrum soap spray—Hammond Paint & Chemical Co., Beacon, N. Y.

**Tetrafume**—rat exterminator—Douglas Chem. & Supply Co., Kansas City, Mo.

**"The Little Man With The Big Flower"**—plant foods—Wm. T. Thompson Co., Los Angeles, Calif.

**"The Spray That Won't Wash Off"**—plant spray—Protex Industries, Inc., New York, N. Y.

**"Their Last Meal"**—repellent—Nott Mfg. Co., New York, N. Y.

**"There is no substitute for Exact Weight"**—scales—Exact Weight Scale Co., Columbus, Ohio

**"They're Just Right Strong But Light"**—farm and garden tools—Union Fork & Hoe Co., Columbus, Ohio.

**Thomas**—floor trucks—Thomas Truck & Caster Co., Keokuk, Iowa.

**Thompson's**—Vitamin B<sub>1</sub> pellets—Wm. T. Thompson Co., Los Angeles, Calif.

**Thompson's Vitamizer**—sprayer—Wm. T. Thompson Co., Los Angeles, Calif.

**Thrip Juice**—insecticide—Hammond Paint & Chemical Co., Beacon, N. Y.

**Transplantone**—root stimulant—American Chemical Paint Co., Ambler, Pa.

**"Treat Seed Every Year—It Pays"**—Dubay products—Bayer-Semesan Co., Inc., Wilmington, Del.

**Triad**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.

**Troemner**—scales—Henry Troemner, Philadelphia, Pa.

**Try-Sax**—cotton seed bags with probe stripes—Bemis Bro. Bag Co., St. Louis, Mo.

**Twist-Ems**—plant ties—Germain Seed & Plant Co., Los Angeles, Calif.

**Two-In-One Envelope Bags**—sample mailing bags—Bemis Bro. Bag Co., St. Louis, Mo.

**Union**—farm and garden tools—Union Fork & Hoe Co., Columbus, Ohio

**Universal**—combination huller, scarifier, cleaner and grader—American Grain Separator Co., Minneapolis, Minn.

**Urbana Culture**—legume inoculator—Urbana Laboratories, Urbana, Ill.

**Urbana Humus**—legume inoculator—Urbana Laboratories, Urbana, Ill.

**Vac-a-Way**—seed and grain cleaner and grader—J. W. Hance Mfg. Co., Westerville, Ohio.

**Vacuum Cleaned Premier**—Swedish Peat Moss—Premier Peat Moss Corp., New York, N. Y.

**Veget-Aid**—plant food—Mechling Bros. Chemicals, Div. General Chem. Co., Philadelphia, Pa.

**Vigoro**—plant food—Swift & Co., Chicago, Ill.

**Visinet**—bags for fruit and vegetables—Bemis Bro. Bag Co., St. Louis, Mo.

**Vitality**—insecticides—The Chas. H. Lilly Co., Seattle, Wash.

**Vitamist**—"Vitimize As You Sprinkle"—Burgess Seed & Plant Co., Galesburg, Mich.

**Warp's Window Fabric**—waxed cloth—Flex-O-Glass Mfg. Co., Chicago, Ill.

**Wedo**—fertilizer and plant food—Smith Agricultural Chemical Co., Columbus, Ohio

**Weed Killer**—weed exterminator—Hammond Paint & Chem. Co., Beacon, N. Y.

**Weed-Knell**—instant weed puller—Weed Knell, Aurora, Ill.

**Whale Oil Soap**—insecticide—Hammond Paint & Chem. Co., Beacon, N. Y.

**Window-Fabric**—waxed cloth—Flex-O-Glass Mfg. Co., Chicago, Ill.

**Winner Fanning Mills**—grain cleaner—American Grain Separator Co., Minneapolis, Minn.

**Wizard**—sheep and cow manure—Pulverized Manure Co., Chicago, Ill.

**Woodco**—lawn food—F. H. Woodruff & Sons, Inc., Milford, Conn.

**Wyr-O-Glass**—Wire Base Glass Substitute—Flex-O-Glass Mfg. Co., Chicago, Ill.

**XX Superior Brand**—raffia—McHutchinson & Co., New York, N. Y.

**XXX Superior Brand**—raffia—McHutchinson & Co., New York, N. Y.

**Zotox**—crab grass killer and chick weed killer—Garden Products Co., St. Louis, Mo.

# DON'T

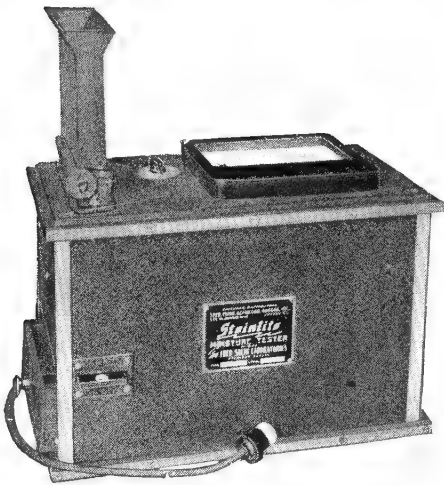
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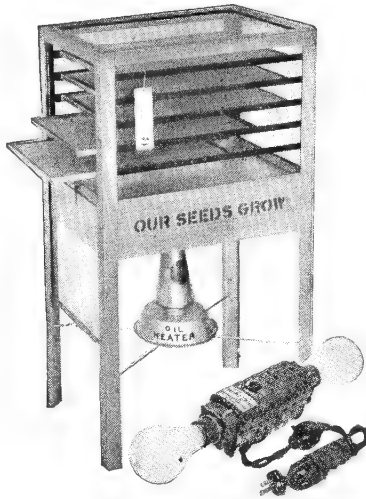
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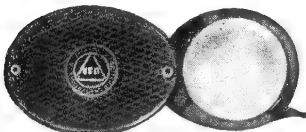
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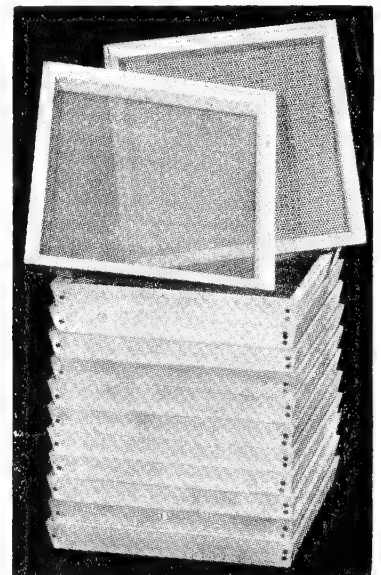


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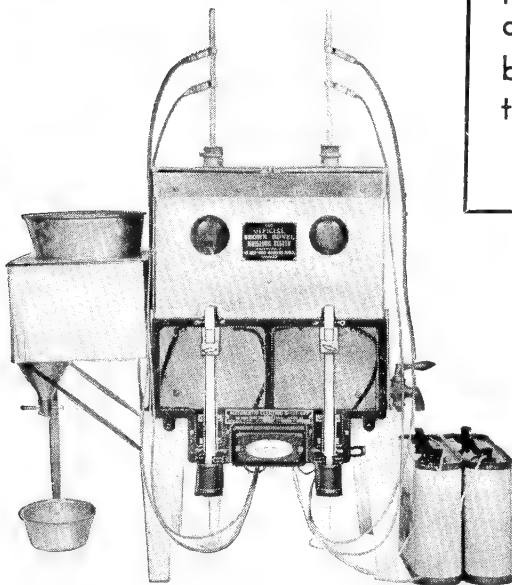
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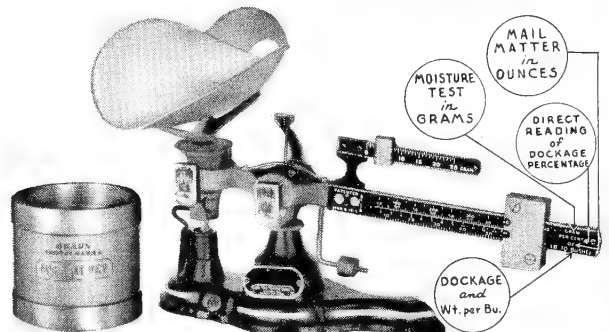
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FOUR-IN-ONE SCALE

Established 1912

# SEEDBURO EQUIPMENT COMPANY

Formerly Seed Trade Reporting Bureau, Inc.

611 Brooks Building

Chicago, Illinois

# Classified List of Seeds

Classifications Showing Specialties of Advertisers in Seed Trade Buyers Guide

Addresses Are Shown on Pages 234-236

## Flower ANNUALS

American Bulb Co.  
Bodger Seeds, Ltd.  
C. S. Brent Seed Co.  
(Nasturtiums)  
Buckman Denholm & Holden  
Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
F. Haubensak Sons  
Herbst Brothers  
Holmes Seed Co.  
Kelly Seed Co.  
The Wm. Macdonald Seed Co.  
J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Rex D. Pearce  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co., Inc.  
Waller-Franklin Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## PERENNIALS

American Bulb Co.  
Bodger Seeds, Ltd.  
Buckman, Denholm & Holden  
Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Jas. Coburn & Son  
Condon Bros., Seedsmen  
Comstock, Ferre & Co.  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
F. Haubensak Sons  
Herbst Brothers  
Holmes Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Wm. Macdonald Seed Co.  
The J. Chas. McCullough  
Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Rex D. Pearce  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co., Inc.  
Waller-Franklin Seed Co.  
T. W. Wood & Sons

## SWEET PEAS

American Bulb Co.  
Bodger Seeds, Ltd.  
C. S. Brent Seed Co.  
Buckman, Denholm & Holden  
Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Wm. Macdonald Seed Co.  
J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.

Waldo Rohnert Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co., Inc.  
Waller-Franklin Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## NOVELTIES

American Bulb Co.  
Bodger Seeds, Ltd.  
Buckman, Denholm & Holden  
Seed Co.  
W. Atlee Burpee Co.  
Burrell Seed, Inc.  
Condon Bros., Seedsmen  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
F. Haubensak Sons  
Herbst Brothers  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Wm. Macdonald Seed Co.  
J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Oriental Seeds & Plants Co.  
Rex D. Pearce  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co., Inc.  
Waller-Franklin Seed Co.  
T. W. Wood & Sons

## TREE SEEDS

Bodger Seeds, Ltd.  
Buckman, Denholm & Holden  
Seed Co.  
Burrell Seeds, Inc.  
Condon Bros., Seedsmen  
Herbst Brothers  
The Nebraska Seed Co.  
Oriental Seeds & Plants Co.  
Rex D. Pearce  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co., Inc.

## WILD FLOWERS

Bodgers Seeds, Ltd.  
Ferry-Morse Seed Co.  
Herbst Brothers  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
Wm. Macdonald Seed Co.  
J. Chas. McCullough Seed Co.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co., Mpls.  
L. L. Olds Seed Co.

## ZINNIAS

American Bulb Co.  
Bodger Seed, Ltd.  
Bowman Seed Co.  
Robt. Buist Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Cornell Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Herbst Brothers  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
Wm. Macdonald Seed Co.  
J. Chas. McCullough Seed Co.  
John Mosbell Co.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co., Mpls.  
L. L. Olds Seed Co.  
Page Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waller-Franklin Seed Co.  
T. W. Wood & Sons

## Wholesale Garden ARTICHOKE

Associated Seed Growers,  
Inc.  
The Barteldes Seed Co.  
Robt. Buist Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co. (Jerusalem)  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.

Keller Seed Store  
F. Lagomarsino & Sons  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## ASPARAGUS

Associated Seed Growers,  
Inc.  
The Barteldes Seed Co.  
Buckham Denholm & Holden  
Seed Co.  
Robt. Buist Co.  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough  
Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## BEANS—BUSH

Associated Seed Growers,  
Inc.  
The Barteldes Seed Co.  
C. S. Brent Seed Co.  
The Bowman Seed Co.  
Alfred J. Brown Seed Co.  
Robt. Buist Co.  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
McCrea Seed Co., Inc.  
The J. Chas. McCullough  
Seed Co.  
Mark Means Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rogers Bros. Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Starr Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
Washburn-Wilson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

## BEANS—FAVA

Robt. Buist Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Cornell Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
McCrea Seed Co., Inc.  
Michael-Leonard Seed Co.

Northrup, King & Co.  
Stollers Seed House  
U. S. Seed Co.  
Zwaan & Van der Molen

## BEANS—HORSE

Comstock, Ferre & Co.  
Cornell Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
The Chas. H. Lilly Co.  
Northrup, King & Co.  
A. S. Paterson & Coy, Ltd.  
I. L. Radwaner Seed Co.  
Rogers Bros. Seed Co.  
Stollers Seed House  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

## BEANS—LIMA (Bush and Pole)

Associated Seed Growers,  
Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robt. Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
McCrea Seed Co., Inc.  
The J. Chas. McCullough  
Seed Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rogers Bros. Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

## BEANS—POLE

The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robt. Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
McCrea Seed Co., Inc.  
The J. Chas. McCullough  
Seed Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rogers Bros. Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
Washburn-Wilson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.



## BEANS—RUNNER

Barteldes Seed Co.  
W. Atlee Burpee Co.  
C. S. Brent Seed Co.  
Comstock, Ferre & Co.  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
Chas. H. Lilly Co.  
McCrea Seed Co., Inc.  
Northrup, King & Co.  
Shuler & Smoak  
T. W. Wood & Sons

## BEET

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
Braslan Seed Growers Co., Inc.

C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Alf. Christianson  
Comstock, Ferre & Co.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co. (also Sugar Beets)

The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co., Inc.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Peter Sluis  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## BROCCOLI

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

John Mosbell Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## BRUSSELS SPROUTS

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Crosman Seed Corp.

L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CABBAGE

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Alf. Christianson  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Bros.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Stollers Seed House  
U. S. Seed Co.  
Wisconsin Cabbage Seed Co. (Yellows Resistant)  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CABBAGE—CHINESE (Pe Tsai Chili or Wong Bok)

Associated Seed Growers, Inc.  
Barteldes Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Herbst Brothers  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
John Mosbell Co.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CANTALOUPE

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company

Burgess Seed & Plant Co.  
Burrell Seeds, Inc.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
D. H. Gilbert Seed Co., Inc.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## CARROT

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Braslan Seed Growers Co., Inc.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Mark Means Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CAULIFLOWER

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.

The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CELERIAC

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## CELERY

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Braslan Seed Growers Co., Inc.

C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Michael-Leonard Seed Co.  
John Mosbell Co.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Page Seed Co.  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Sherwood Seed Co.  
Shuler & Smoak  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## CHICORY

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
Robert Buist Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

## COLLARD

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.



Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### CORN SALAD

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Co.  
Comstock, Ferre & Co.  
Cornell Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Keller Seed Store  
Kelly Seed Co.  
Northrup, King & Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Michael-Leonard Seed Co.  
Chas. R. Moore  
Nebraska Seed Co.  
L. L. Olds Seed Co.  
U. S. Seed Co.  
T. W. Wood & Sons  
Zwaan & Van der Molen

### CORN—SWEET

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
C. S. Clark & Sons  
Comstock, Ferre & Co.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Farmer Seed & Nursery Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Jacques Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.

Michael-Leonard Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
O & M Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
J. C. Robinson Seed Co.  
Rogers Bros. Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### CORN (Hybrid)

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
C. S. Clark & Sons  
Condon Bros., Seedsmen  
Comstock, Ferre & Co.  
Cornell Seed Company  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Jacques Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Michael-Leonard Seed Co.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Nebraska Seed Co.  
Northrup, King & Co.  
O & M Seed Co.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
Page Seed Co.  
I. L. Radwaner Seed Co., Inc.  
J. C. Robinson Seed Co.  
Rogers Bros. Seed Co.  
Stanford Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### CRESS

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Norval E. Kirby  
F. Lagomarsino & Sons  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Peter Sluis  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. W. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### CUCUMBER

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Starr Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### DANDELION

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
F. Lagomarsino & Sons  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Walter S. Schell, Inc.  
Stollers Seed House

U. S. Seed Co.  
F. H. Woodruff & Sons, Inc.

### DILL

Kimberlin Seed Co.  
Pieters-Wheeler Seed Co.  
Waldo Rohnert Co.

### EGG PLANT

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
J. P. Snapp & Son  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### ENDIVE

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Company  
Robert Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co., Inc.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### GOURD

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Bodger Seeds, Ltd.  
Buckman, Denholm & Holden Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Company  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.

Lawrence Robinson & Sons  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.

### HERBS

Agricultural Seed Co., Ltd.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Buckman, Denholm & Holden Seed Co.  
Robert Buist Company  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-op. Ass'n.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Company  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
(Dill only)  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co. (Dill)  
Walter S. Schell, Inc.  
Standard Seed Farms Co.  
(Sweet Basil)  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### KALE

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Benton Mill & Whse. Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Mark Means Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### KOHLRABI

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Company  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### LEEK

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Company  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Walter S. Schell, Inc.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### LETTUCE

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Braslan Seed Growers Co., Inc.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Arthur R. Cone  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

#### MANGEL

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Alf Christianson  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.

Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### MUSKMELON

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### MUSTARD

Agricultural Seed Co., Ltd.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Hungarian Farmers Co-op.  
Ass'n  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Mark Means Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.

Standard Seed Farms Co.  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### MUSTARD—CHINESE

Associated Seed Growers, Inc.  
Barteldes Seed Co.  
C. S. Brent Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Cornell Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Chas. C. Hart Seed Co.  
Herbst Brothers  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Michael-Leonard Seed Co.  
Chas. R. Moore  
John Mosbell Co.  
Nebraska Seed Co.  
Robert Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Sherwood Seed Co.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### OKRA

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### ONION SEED

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Braslan Seed Growers Co., Inc.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Hollenbach's Seed Store  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons

F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

#### ONION SETS

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Ferry-Morse Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Hollenbach's Seed Store  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
(onion bulb)  
Russell-Heckle Seed Co.  
William G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. P. Snapp & Son  
Stollers Seed House  
T. W. Wood & Sons  
U. S. Seed Co.  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

#### PARSLEY

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Company  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen.

#### PARSNIP

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Law, Sommer Pty., Ltd.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.

The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### PEANUTS

The Barteldes Seed Co.  
The Bowman Seed Co.  
W. Atlee Burpee Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

The Nebraska Seed Co.  
Robert Nicholson Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
Prunty Seed & Grain Co.  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Snelson Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons

### PEAS

Agricultural Seed Co., Ltd.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Crosman Seed Corp.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. S. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-op.  
Assn.

Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
The Chas. H. Lilly Co.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.

Mark Means Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
A. S. Paterson & Coy, Ltd.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rogers Bros. Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
Washburn-Wilson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

Zwaan & Van der Molen

### PEAS—BLACKEYE

Associated Seed Growers, Inc.  
The J. Chas. McCullough Seed Co.

T. W. Wood & Sons

### PEPPER

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.

W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.

F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.

The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
J. P. Snapp & Son  
Stollers Seed House  
U. S. Seed Co.  
Joseph White Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### POPPY SEED

Agricultural Seed Co., Ltd.  
Barteldes Seed Co.  
Alfred J. Brown Seed Co.  
Comstock, Ferre & Co.  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Hungarian Farmers Co-op.  
Assn.

Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Michael-Leonard Seed Co.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Shuler & Smoak  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons

### POTATO—SEED

The Barteldes Seed Co.  
Burgess Seed & Plant Co.  
Condon Bros., Seedsmen  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
McCabe Bros. Grain Co.  
The Nebraska Seed Co.  
L. L. Olds Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
S. D. Woodruff & Sons, Inc.

### PUMPKIN

Agricultural Seed Co., Inc.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros. Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-op.  
Assn.

Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.

The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
J. P. Snapp & Son  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### RADISH

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.

Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Starr Seed Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### RHUBARB

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### ROOT SEEDS

Associated Seed Growers, Inc.  
J. A. Boyce Co.  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Herbst Brothers  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.

The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
John Mosbell Co.  
Nebraska Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Stollers Seed House  
U. S. Seed Co.  
F. H. Woodruff & Sons, Inc.

### RUTABAGA

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
J. A. Boyce Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Alf Christianson  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Mark Means Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### SALSIFY

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
Braslan Seed Growers Co., Inc.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Corneli Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### SOYBEANS (Edible)

Associated Seed Growers, Inc.

### SPICE

Hungarian Farmers Coop.  
Assn.  
Michael-Leonard Seed Co.  
Northrup, King & Co.

### SPINACH

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.

Alf Christianson  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Mark Means Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### SQUASH

Agricultural Seed Co., Ltd.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### SWISS CHARD

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Kimberlin Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.

L. L. Olds Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Waldo Rohnert Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Sherwood Seed Co.  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### TOMATO

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Francis C. Stokes Co.  
Stollers Seed House  
U. S. Seed Co.  
Joseph White Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### TURNIP

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
J. A. Boyce Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
W. Atlee Burpee Co.  
Alf Christianson  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
L. Daehnfeldt, Ltd.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
Norval E. Kirby  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The Chas. H. Lilly Co.  
Mark Means Co.  
Michael-Leonard Seed Co.  
Charles R. Moore  
John Mosbell Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Geo. R. Pedrick & Sons  
Pieters-Wheeler Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Peter Sluis  
Standard Seed Farms Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.  
Zwaan & Van der Molen

### VINE SEEDS

The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.

Alfred J. Brown Seed Co.  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
D. H. Gilbert Seed Co., Inc.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Herbst Brothers  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
S. D. Woodruff & Sons, Inc.

### WATERMELON

Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Alfred J. Brown Seed Co.  
Robert Buist Company  
Burgess Seed & Plant Co.  
W. Atlee Burpee Co.  
Burrell Seeds, Inc.  
Comstock, Ferre & Co.  
Condon Bros., Seedsmen  
Cornell Seed Company  
Crosman Seed Corp.  
Ferry-Morse Seed Co.  
H. D. Garwood Seed Co.  
D. H. Gilbert Seed Co., Inc.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
The Page Seed Co.  
Paramount Seed Co.  
Geo. R. Pedrick & Sons  
I. L. Radwaner Seed Co., Inc.  
The J. C. Robinson Seed Co.  
Lawrence Robinson & Sons  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Walter S. Schell, Inc.  
Simpson Nursery Co.  
Stollers Seed House  
U. S. Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### Wholesale Field Seed

#### ALFALFA

The Ackerman Co.  
Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Barteldes Seed Co.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
Blue Mt. Seed Growers Assn.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Company  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Roscoe J. Carl & Son  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
The Albert Dickinson Co.  
Craver-Dickinson Seed Co.  
Davenport Seed Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Goldberg Seed & Feed Co.  
The Gooding Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.

The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-op. Assn.

Edgar F. Hurff Co.  
Idaho Grimm Alfalfa Seed Growers Assn., Inc.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
H. C. King & Sons, Inc.  
F. Lagomarsino & Sons  
Lakin Seed Co.  
R. E. Lambert & Sons  
Land O'Lakes Creameries, Inc.  
Law, Somner Pty., Ltd.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.

McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Montana Seed Co.  
Charles R. Moore  
National Seed Co.  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Robt. Nicholson Seed Co.  
Northern Field Seed Co.  
Northrup, King & Co.  
Northrup, King & Co. (Bomberger Div.)

Northwestern Seed Co., Inc.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
E. F. Sanguinetti  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Sommer Bros. Seed Co.  
The Stanford Seed Co.  
Steele Briggs Seed Co., Ltd.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
Valker-Christensen Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma Co. Farmers Mktg Assn.

### AUSTRIAN WINTER PEAS

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
Blue Mt. Seed Growers Assn.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Keller Seed Store  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.

Mark Means Co.  
Charles R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bomberger Div.)

Paramount Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Snelson Seed Co.  
Transcontinental Seed, Inc.  
T. W. Wood & Sons

### BEGGARWEED—FLORIDA

D. H. Gilbert Seed Co., Inc.  
Grand Island Nurseries  
R. E. Lambert & Sons  
Simpson Nursery Co.  
T. W. Wood & Sons

### BENT GRASS

Advance Seed Co.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.



Robt. Buist Co.  
Cargill, Inc.  
Arthur R. Cone  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Engbretson Seed Co.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis & Clark Seed Co., Inc.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Charles R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
L. L. Olds Seed Co.  
Ouren Seed Co.  
A. S. Paterson & Coy, Ltd.  
The Philadelphia Seed Co., Inc.  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
The Stanford Seed Co.  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

#### BENT STOLONS

O. M. Scott & Sons Co.  
Stollers Seed House  
F. H. Woodruff & Sons, Inc.

#### BERMUDA GRASS

Advance Seed Co.  
The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
Robt. Buist Co.  
Capital Fuel, Feed & Seed Co.  
Cornell Seed Co.  
Cuff-Archias Seed Co.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
International Seed, Inc.  
Keller Seed Store  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
E. F. Sanguinetti  
Wm. G. Scarlett & Co.  
Sedgwick Alfalfa Mills  
Snelson Seed Co.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma Co. Farmers Mktg. Assn.

#### BIRDSRAPE OR RUEBSEN

Cornell Seed Co.  
Duryea Seed Co., Inc.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Charles R. Moore  
The Nebraska Seed Co.  
Philadelphia Seed Co.  
Wm. G. Scarlett & Co.  
Stollers Seed House  
T. W. Wood & Sons

#### BLUE GRASS

The Ackerman Co.  
Associated Seed Growers, Inc.  
The Belt Seed Co.  
The Barteldes Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Cargill, Inc.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Craver-Dickinson Seed Co.

The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Ging & Company  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop. Assn.  
International Seed, Inc.  
Jenks-White Seed Co.  
Geo. Keller & Sons  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.

The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Robt. Nicholson Seed Co.  
Northern Field Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
Northwestern Seed Co., Inc.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
O. M. Scott & Sons Co.  
Shultz Seed Co., Inc.  
Sommer Bros. Seed Co.  
Sphar & Gay Seed Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### BROME GRASS

Agricultural Seed Co., Ltd.  
The Barteldes Seed Co.  
The Belt Seed Co.  
Blue Mt. Seed Growers Assn.  
The Bowman Seed Co.  
Cargill, Inc.  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Goldberg Seed & Feed Co.  
The Gooding Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
Hungarian Farmers Co-Op. Assn.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Land O' Lakes Creameries, Inc.  
Julius Loewith, Inc.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Mark Means Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Northern Field Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.

Stollers Seed House  
Twin City Seed Co.  
Valker-Christensen Co.  
F. H. Woodruff & Sons, Inc.

#### CANE

The Barteldes Seed Co.  
The Belt Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Cargill, Inc.  
Cornell Seed Co.  
The Albert Dickinson Co.  
Funk Bros. Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
Holmes Seed Co.  
International Seed, Inc.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northwestern Seed Co., Inc.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Sedgwick Alfalfa Mills  
George P. Sexauer & Son  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
Valker-Christensen Co.  
T. W. Wood & Sons

#### CARPET GRASS

(Paspalum Compressum)

R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Julius Loewith, Inc.  
McHutchison & Co.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Wm. G. Scarlett & Co.  
T. W. Wood & Sons

#### CLOVER—ALSIKE

The Ackerman Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
Blue Mountain Seed Growers Assn.  
C. S. Brent Seed Co.  
Robert Buist Company  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
A. Ertag, Inc.  
Roscoe J. Carl & Son  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Farmer Seed & Nursery Co.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Goldberg Seed & Feed Co.  
The Gooding Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Henry Hirsch & Sons, Inc.  
Holmes Seed Co.  
Hungarian Farmers Co-Op. Assn.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Geo. Keller & Sons  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Land O' Lakes Creameries, Inc.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
Mark Means Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.

Robt. Nicholson Seed Co.  
Northern Field Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
The O & M Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co., Inc.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Sommer Bros. Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### CLOVER—ALYCE

The Belt Seed Co.  
Duryea Seed Co., Inc.  
Grand Island Nurseries  
The Chas. C. Hart Seed Co.  
International Seed, Inc.  
Kelly Seed Co.  
R. E. Lambert & Sons  
Chas. R. Moore  
Robert Nicholson Seed Co.  
L. L. Olds Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Russell-Heckle Seed Co.  
Snelson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### CLOVER—BURR

Advance Seed Co.  
The Belt Seed Co.  
Capital Fuel, Feed & Seed Co.  
Ferry-Morse Seed Co.  
International Seed, Inc.  
Keller Seed Store  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bom-berger Div.)  
Ostberg Seed Co.  
Paramount Seed Co.  
Russell-Heckle Seed Co.  
Snelson Seed Co.  
Stollers Seed House  
T. W. Wood & Sons

#### CLOVER—CRIMSON

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Capital Fuel, Feed & Seed Co.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Ging & Company  
The Chas. C. Hart Seed Co.  
Hungarian Farmers Co-Op. Assn.  
International Seed, Inc.  
Jenks-White Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
The J. Chas. McCullough Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
N. V. H. Mommersteeg's  
Zaadteelt & Zaadhandel  
Chas. R. Moore  
National Seed Co., Inc.  
Robt. Nicholson Seed Co.  
Ostberg Seed Co.  
The Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co., Inc.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
Seaboard Seed Co.  
Shultz Seed Co., Inc.  
Snelson Seed Co.



Transcontinental Seed, Inc.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### CLOVER—LADINO

Advance Seed Co.  
The Belt Seed Co.  
Blue Mountain Seed Growers Assn.  
Capital Fuel, Feed & Seed Co.  
Arthur R. Cone  
The Albert Dickinson Co.  
Craver-Dickinson Seed Co.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
The Gooding Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Josephine Growers Co-Op. Assn.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
The J. Chas. McCullough Seed Co.  
Mark Means Co.  
Chas. R. Moore  
Northrup, King & Co. (Bomberger Div.)  
Ostberg Seed Co.  
Paramount Seed Co.  
The Philadelphia Seed Co., Inc.  
Russell-Heckle Seed Co.  
William G. Scarlett & Co.  
Walter S. Schell, Inc.  
Seaboard Seed Co.  
Transcontinental Seed, Inc.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### CLOVER—MAMMOTH RED

Ackerman Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Roscoe J. Carl & Son  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
Davenport Seed Co.  
Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Funk Bros. Seed Co.  
Ging & Company  
Hamilton Seed & Coal Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Geo. Keller & Sons  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
Nebraska Seed Co.  
Northrup, King & Co.  
Northwestern Seed Co., Inc.  
L. L. Olds Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
Page Seed Co.  
Peppard Seed Co.  
Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

### CLOVER—PERSIAN

Corneli Seed Co.  
Duryea Seed Co., Inc.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
W. T. Nolin

### CLOVER—RED

The Ackerman Co.  
Agricultural Seed Co., Ltd.  
The Barteldes Seed Co.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
Blue Mountain Seed Growers Assn.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Roscoe J. Carl & Son

Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
Davenport Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co.  
Leslie Edgerton  
A. Ertag, Inc.  
Farmer Seed & Nursery Co.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
The Gooding Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Henry Hirsch & Sons, Inc.  
Holmes Seed Co.  
Hungarian Farmers Co-Op. Assn.  
Idaho Grimm Alfalfa Seed Growers Assn., Inc.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Kelly Seed Co.  
Geo. Keller & Sons  
H. C. King & Sons, Inc.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Land O'Lakes Creameries, Inc.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Magill & Co.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel

Montana Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robert, Nicholson Seed Co.  
W. T. Nolin  
Northern Field Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
The O & M Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
A. S. Paterson & Coy, Ltd.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co., Inc.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Seaboard Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Sommer Bros. Seed Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

### CLOVER—STRAWBERRY

Blue Mountain Seed Growers Assn.  
F. Lagomarsino & Sons  
F. H. Woodruff & Sons, Inc.

### CLOVER—

### SUBTERRANEAN

Law, Somner Pty., Ltd.

### CLOVER—SWEET

The Ackerman Co.  
The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
Robt. Buist Co.  
C. S. Brent Seed Co.  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Roscoe J. Carl & Son  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.

Ging & Company  
Goldberg Seed & Feed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Henry Hirsch & Sons  
Holmes Seed Co.  
Hungarian Farmers Co-Op. Assn.  
Edgar F. Hurff Co.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Keller Seed Store  
Geo. Keller & Sons  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lakin Seed Co.  
Land O'Lakes Creameries, Inc.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel  
Montana Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Newday Seeds, Inc.  
Northern Field Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
The O & M Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Sommer Bros. Seed Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
Walker-Christensen Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### CLOVER—YELLOW SWEET

Ackerman Co.  
Barteldes Seed Co.  
Blue Mt. Seed Growers Assn.  
Bowman Seed Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Roscoe J. Carl & Son  
Corneli Seed Co.  
Davenport Seed Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Goldberg Seed & Feed Co.  
Ging & Company  
Gooding Seed Co.  
Keller Seed Store  
Geo. Keller & Sons  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Land O' Lakes Creameries, Inc.  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
Nebraska Seed Co.  
Newday Seeds, Inc.  
Northrup, King & Co. (Bomberger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
Page Seed Co.  
Peppard Seed Co.  
Philadelphia Seed Co.  
Purcell Seed Co.  
Ross Seed Co.

Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son

### CLOVER—WHITE

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
The Gooding Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-Op. Assn.  
Edgar F. Hurff Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Land O'Lakes Creameries, Inc.  
Law, Somner Pty., Ltd.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Mark Means Co.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Northern Field Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
L. L. Olds Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
A. S. Paterson & Coy, Ltd.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Harold Saddy's Seeds, Ltd.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

The J. Chas. McCullough Seed Co.

Chas. R. Moore  
Ostberg Seed Co.  
Philadelphia Seed Co.  
Wm. G. Scarlett & Co.  
Seaboard Seed Co.  
The Stanford Seed Co.  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

## CORN—FIELD

The Barteldes Seed Co.  
The Belt Seed Co.  
Benton Mill & Warehouse Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Cargill, Inc.  
C. S. Clark & Sons  
Arthur R. Cone  
Condon Bros. Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Farmer Seed & Nursery Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
Funk Bros. Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Intrestate Seed & Grain Co.  
Jacques Seed Co.  
Jenks-White Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Land O' Lakes Creameries,  
Inc.  
R. E. Lambert & Sons  
Lewis Seed Co.  
Louisville Seed Co.  
Magill & Co.  
Ed F. Mangelsdorf & Bro.,  
Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed  
Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Northern Field Seed Co.  
L. L. Olds Seed Co.  
The O & M Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Purcell Seed Co.  
Riemers' Farms  
Ross Seed Co., Inc.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Sedgwick Alfalfa Mills  
George P. Sexauer & Son  
Shultz Seed Co., Inc.  
Shuler & Smoak  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## CORN—FLINT

Cargill, Inc.  
C. S. Clark & Sons  
Comstock, Ferre & Co.  
Jenks-White Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Land O' Lakes Creameries,  
Inc.  
McCabe Bros. Grain Co., Ltd.  
Chas. R. Moore  
Nebraska Seed Co.  
Northrup, King & Co., Mpls.  
O. & M. Seed Co.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
Page Seed Co.  
Philadelphia Seed Co.  
J. C. Robinson Seed Co.  
Wm. G. Scarlett & Co.  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
T. W. Wood & Sons

## CORN (Hybrid)

Barteldes Seed Co.  
C. S. Brent Seed Co.  
Bowman Seed Co.  
Cargill, Inc.  
C. S. Clark & Sons  
Corneli Seed Co.  
Condon Bros. Seedsmen  
Davenport Seed Co.  
Edward J. Funk & Sons

Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
International Seed, Inc.  
Jacques Seed Co.  
Jenks-White Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
Land O' Lakes Creameries,  
Inc.

R. E. Lambert & Sons  
Louisville Seed Co.  
Ed F. Mangelsdorf & Bro. Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed  
Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
National Seed Co.  
Nebraska Seed Co.  
Newday Seeds, Inc.  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
O. & M. Seed Co.  
Ouren Seed Co.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
Page Seed Co.  
Peppard Seed Co.  
Philadelphia Seed Co.  
Purcell Seed Co.  
J. C. Robinson Seed Co.  
Ross Seed Co.  
Wm. G. Scarlett & Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Stollers Seed House  
Stanford Seed Co.  
Owen T. Watts  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## COTTON

Corneli Seed Co.  
Keller Seed Store  
R. E. Lambert & Sons  
Robt. Nicholson Seed Co.  
Russell-Heckle Seed Co.  
Shuler & Smoak  
Snelson Seed Co.  
(Sea Island Long Staple  
only)

T. W. Woods & Sons

## COWPEAS

Associated Seed Growers, Inc.  
The Belt Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Condon Bros. Seedsmen  
Corneli Seed Co.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Ging & Company  
The Chas. C. Hart Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough Seed  
Co.  
Chas. R. Moore  
National Seed Co., Inc.  
Robt. Nicholson Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.  
Seaboard Seed Co.  
Sedgwick Alfalfa Mills  
Shuler & Smoak  
Snelson Seed Co.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## CRESTED DOGSTAIL

The Belt Seed Co.  
James Coburn & Son  
Craver-Dickinson Seed Co.  
Duryea Seed Co., Inc.  
The Chas. C. Hart Seed Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
F. Lagomarsino & Sons  
Julius Loewith, Inc.  
The J. Chas. McCullough Seed  
Co.  
N. V. H. Mommersteeg's Zaad-  
teelt en Zaadhandel  
A. S. Paterson & Coy, Ltd.  
I. L. Radwaner Seed Co., Inc.  
Wm. G. Scarlett & Co.

The Stanford Seed Co.  
Transcontinental Seed, Inc.  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy  
Ltd.

## CRESTED WHEAT GRASS

Barteldes Seed Co.  
Blue Mt. Seed Growers Assn.  
Bowman Seed Co.  
Cargill, Inc.  
Corneli Seed Co.  
The Albert Dickinson Co.  
Leslie Edgerton  
Goldberg Seed & Feed Co.  
The Gooding Seed Co.  
Griswold Seed & Nursery Co.  
Jenks-White Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
Lakin Seed Co.  
Land O' Lakes Creameries,  
Inc.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed F. Mangelsdorf & Bro.,  
Inc.  
Magill & Co.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed  
Co.  
Montana Seed Co.  
Nebraska Seed Co.  
Newday Seeds, Inc.  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bom-  
berger Div.)  
Northrup, King & Co., Mpls.  
Edgar L. Oakes & Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
Philadelphia Seed Co.  
Rudy-Patrick Seed Co.  
Geo. P. Sexauer & Son  
Steele, Briggs Seed Co., Ltd.  
Valker-Christensen Co.  
F. H. Woodruff & Sons, Inc.

## CROTALARIA

The Belt Seed Co.  
Corneli Seed Co.  
D. H. Gilbert Seed Co., Inc.  
Grand Island Nurseries  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
Robt. Nicholson Seed Co.  
Riemers' Farms  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Simpson Nursery Co.  
Snelson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

## DALLIS GRASS

(Paspalum Dilatatum)

Advance Seed Co.  
The Belt Seed Co.  
Ferry-Morse Seed Co.  
International Seed, Inc.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Sommer Pty., Ltd.  
Julius Loewith, Inc.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Northrup, King & Co. (Bom-  
berger Div.)  
Riemers' Farms  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Snelson Seed Co.  
Transcontinental Seed, Inc.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma Co. Farmers Mktg.  
Assn.

## ESPARSETTE OR SANFOIN

Duryea Seed Co., Inc.  
Julius Loewith, Inc.

## FESCUES

Agricultural Seed Co., Ltd.  
Associated Seed Growers, Inc.  
The Belt Seed Co.  
Blue Mt. Seed Growers Assn.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Arthur R. Cone  
Craver-Dickinson Seed Co.  
Corneli Seed Co.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Engbretson Seed Co.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop.  
Assn.  
International Seed, Inc.

Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis & Clark Seed Co., Inc.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed F. Mangelsdorf & Bro.,  
Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed  
Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
Northrup, King & Co. (Bom-  
berger Div.)  
Northrup, King & Co., Mpls.  
L. L. Olds Seed Co.  
A. S. Paterson & Coy, Ltd.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

## FETERITA

Advance Seed Co.  
The Barteldes Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Keller Seed Store  
Ed F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough Seed  
Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Peppard Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Snelson Seed Co.

## FIELD PEAS

Advance Seed Co.  
The Belt Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Cargill, Inc.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Hungarian Farmers Coop.  
Assn.  
International Seed, Inc.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Keller Seed Store  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Sommer Pty., Ltd.  
Leckenby Seed Co.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Magill & Co.  
Ed F. Mangelsdorf & Bro.,  
Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed  
Co.  
Mark Means Co.  
Montana Seed Co.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
L. L. Olds Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
A. S. Paterson & Coy, Ltd.  
The Philadelphia Seed Co.,  
Inc.  
Prunty Seed & Grain Co.  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
The Stanford Seed Co.  
Stollers Seed House  
Shuler & Smoak  
Snelson Seed Co.

Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

### GRASSES—FANCY

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
Blue Mt. Seed Growers Assn.  
The Bowman Seed Co.  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Engbretson Seed Co.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co.-Op.  
Assn.

International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis Seed Co.  
Lewis & Clark Seed Co., Inc.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro.  
Inc.

The J. Chas. McCullough Seed Co.

Chas. R. Moore  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Northrup, King & Co.  
(Bomberger Div.)  
Northrup, King & Co., Mpls.  
L. L. Olds Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Shultz Seed Co., Inc.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma County Farmers Mktg.  
Assn.

### GROHOMA

The Barteldes Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Funk Bros. Seed Co.  
Griswold Seed & Nursery Co.  
Keller Seed Store  
Kelly Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Robt. Nicholson Seed Co.  
Peppard Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
Twin City Seed Co.

### HEGARI

Advance Seed Co.  
The Barteldes Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Funk Bros. Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
Keller Seed Store  
R. E. Lambert & Sons  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Robt. Nicholson Seed Co.  
Northwestern Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
Twin City Seed Co.  
T. W. Wood & Sons

Yuma Co. Farmers Mktg.  
Assn.

### HEMP

Advance Seed Co.  
C. S. Brent Seed Co.  
Corneli Seed Co.  
The Albert Dickinson Seed Co.  
Duryea Seed Co., Inc.  
Hamilton Seed & Coal Co.  
Ed. Mangelsdorf & Bros., Inc.  
The J. Chas. McCullough Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
The Stanford Seed Co.  
Twin City Seed Co.

### JOHNSON GRASS

Advance Seed Co.  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Keller Seed Store  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Ed. F. Mangelsdorf & Bro., Inc.  
Robt. Nicholson Seed Co.  
Snelson Seed Co.

### KAFIR CORN

The Barteldes Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Robert Buist Co.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
Keller Seed Store  
Kelly Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
Stollers Seed House  
T. W. Wood & Sons

### KUDZU

C. S. Brent Seed Co.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
Peppard Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Wm. G. Scarlett & Co.  
Snelson Seed Co.

### LAWN MIXTURES

Ackerman Co.  
American Bulb Co.  
Associated Seed Growers, Inc.  
The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Co.  
Cargill, Inc.  
Jas. Coburn & Son  
Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop. Assn.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel  
Chas. R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
Northrup, King & Co., Mpls.

L. L. Olds Seed Co.  
O & M Seed Co.  
Oriental Seeds & Plants Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Seaboard Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
Sommer Bros. Seed Co.  
Shultz Seed Co., Inc.  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### LESPEDeza

The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Corneli Seed Co.  
Craver-Dickson Seed Co.  
Funk Bros. Seed Co.  
The Albert Dickinson Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
International Seed, Inc.  
Geo. Keller & Sons  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Company  
Robt. Nicholson Seed Co.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co., Inc.  
Riemers' Farms  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Seaboard Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.  
Shultz Seed Co., Inc.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
J. P. Snapp & Son  
Snelson Seed Co.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### LUPINES

Agricultural Seed Co., Ltd.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel  
I. L. Radwaner Seed Co., Inc.  
Snelson Seed Co.  
F. H. Woodruff & Sons, Inc.

### MAPLE PEAS

Blue Mountain Seed Growers Assn.  
Duryea Seed Co., Inc.  
Julius Loewith, Inc.  
F. Lagomarsino & Sons  
Law, Somner Pty., Ltd.  
The J. Chas. McCullough Seed Co.  
Philadelphia Seed Co.  
Wm. G. Scarlett & Co.  
Wright, Stephenson & Coy, Ltd.

### MELILOTUS INDICA

C. S. Brent Seed Co.  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Corneli Seed Co.  
Cuff-Archias Seed Co.  
Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Chas. R. Moore  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.

Northrup, King & Co.  
(Bomberger Div.)  
Paramount Seed Co.  
Yuma Co. Farmers Mktg.  
Assn.

### MICHELs

Blue Mt. Seed Growers Assn.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
The Gooding Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Leckenby Seed Co.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Rudy-Patrick Seed Co.  
Stollers Seed House  
F. H. Woodruff & Sons, Inc.

### MILLETS

Agricultural Seed Co., Inc.  
The Barteldes Seed Co.  
The Belt Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Robert Buist Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Arthur R. Cone  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop. Assn.  
Edgar F. Hurff Co.  
Interstate Seed & Grain Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
Riemers' Farms  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Snelson Seed Co.

(Cattail and Brown Top)  
The Stanford Seed Co.  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
Valker-Christensen Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### MILO MAIZE

Advance Seed Co.  
The Barteldes Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
Capital Fuel, Feed & Seed Co.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
L. L. Olds Seed Co.  
Paramount Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Snelson Seed Co.

Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### MUNG BEANS

Cornell Seed Co.  
Keller Seed Store  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
The J. Chas. McCullough  
Seed Co.  
Robt. Nicholson Seed Co.  
J. M. Schultz Seed Co.  
Snelson Seed Co.

### OAT GRASS

The Belt Seed Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Corneli Seed Co.  
Duryea Seed Co., Inc.  
The Chas. C. Hart Seed Co.  
Jenks-White Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
The J. Chas. McCullough  
Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
National Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### OIL SEEDS

Chas. H. Lilly Co.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough  
Seed Co.  
Wm. G. Scarlett & Co.

### ORCHARD GRASS

The Belt Seed Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop.  
Assn.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough  
Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
National Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Seaboard Seed Co.  
Shultz Seed Co., Inc.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

### PASTURE MIXTURES

The Belt Seed Co.  
C. S. Brent Seed Co.  
The Bowman Seed Co.  
Robert Buist Co.  
Cargill, Inc.  
Condon Bros., Seedsmen  
Arthur R. Cone  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Seed  
Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.

Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Louisville Seed Co.  
McCabe Bros. Grain Co., Ltd.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough  
Seed Co.  
Michael-Leonard Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Northrup, King & Co.  
(Bomberger Div.)  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
William G. Scarlett & Co.  
Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seeds, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### PHALARIS TUBEROSE

Law, Somner Pty., Ltd.

### POA TRIVIALIS

Ackerman Co.  
Associated Seed Growers,  
Inc.  
Barteldes Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Co.  
Cargill, Inc.  
Corneli Seed Co.  
Albert Dickinson Co.  
Craver-Dickinson Seed Co.  
Duryea Seed Co., Inc.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough  
Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
John Mosbell Co.  
National Seed Co., Inc.  
Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
Philadelphia Seed Co., Inc.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Geo. P. Sexauer & Son  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Stollers Seed House  
Owen T. Watts  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### RAPE

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Cargill, Inc.  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.

The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop.  
Assn.  
International Seed, Inc.  
Jenks-White Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. F. Lambert & Sons  
Leckenby Seed Co.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough  
Seed Co.  
Mark Means Co.  
Michael-Leonard Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Chas. R. Moore  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
Shultz Seed Co., Inc.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son.  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy,  
Ltd.

### REDTOP

The Ackerman Co.  
Associated Seed Growers, Inc.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Cargill, Inc.  
Condon Bros., Seedsmen  
Arthur R. Cone  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Ging & Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Coop.  
Assn.  
International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
Geo. Keller & Sons  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
The J. Chas. McCullough  
Seed Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northern Field Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
J. M. Schultz Seed Co.

Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
Shultz Seed Co., Inc.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### REED CANARY GRASS

The Belt Seed Co.  
Cargill, Inc.  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Farmer Seed & Nursery Co.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
Holmes Seed Co.  
Interstate Seed & Grain Co.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro.,  
Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough  
Seed Co.  
Michael-Leonard Seed Co.  
Chas. R. Moore  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Northrup, King & Co.  
(Bomberger Div.)  
Northrup, King & Co., Mpls.  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Philadelphia Seed Co.,  
Inc.  
Rudy-Patrick Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
F. H. Woodruff & Sons, Inc.

### RESCUE GRASS

The Belt Seed Co.  
Duryea Seed Co., Inc.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Julius Loewith, Inc.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
A. S. Paterson & Coy, Ltd.  
I. L. Radwaner Seed Co., Inc.  
Snelson Seed Co.  
Stollers Seed House

### RHODES GRASS

The Belt Seed Co.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Julius Loewith, Inc.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
I. L. Radwaner Seed Co., Inc.  
William G. Scarlett & Co.  
Snelson Seed Co.  
Stollers Seed House

### RYE GRASS—DOMESTIC

Advance Seed Co.  
The Ackerman Co.  
Associated Seed Growers, Inc.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Capital Fuel, Feed & Seed  
Co.  
Cargill, Inc.  
Arthur R. Cone  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons



Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co., Mpls.  
Northrup, King & Co.  
Bomberger Div.)  
L. L. Olds Seed Co.  
Ostberg Seed Co.  
Ouren Seed Co.  
Paramount Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### RYE GRASS—ENGLISH

Benton Mill & Whse. Co.  
C. S. Brent Seed Co.  
Jas. Coburn & Son  
Cornell Seed Co.  
Craver-Dickson Seed Co.  
Duryea Seed Co., Inc.  
International Seed, Inc.  
Jenks-White Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.

J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
John Mosbell Co.  
Northrup, King & Co.  
(Bomberger Div.)  
Philadelphia Seed Co., Inc.  
O. M. Scott & Sons Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
Geo. P. Sexauer & Son  
Stollers Seed House  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### RYE GRASS—ITALIAN

Benton Mill & Whse. Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
James Coburn & Son  
L. Daehnfeldt, Ltd.  
Hungarian Farmers Co-op. Assn.

International Seed, Inc.  
Jenks-White Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.

The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
John Mosbell Co.  
Nebraska Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
Philadelphia Seed Co., Inc.  
Wm. G. Scarlett & Co.  
Geo. P. Sexauer & Son  
O. M. Scott & Sons Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

#### RYE GRASS—PERENNIAL

The Ackerman Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
James Coburn & Son  
Craver-Dickinson Seed Co.  
Duryea Seed Co., Inc.  
Funk Bros. Seed Co.

Hungarian Farmers Co-op. Assn.  
International Seed, Inc.  
Jenks-White Seed Co.  
H. C. King & Sons  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.

The J. Chas. McCullough Seed Co.  
Michael-Leonard Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
John Mosbell Co.  
Nebraska Seed Co.  
Northrup, King & Co.  
(Bomberger Div.)  
Ostberg Seed Co.  
Philadelphia Seed Co., Inc.  
A. S. Paterson & Coy, Ltd.  
Seaboard Seed Co.  
Wm. G. Scarlett & Co.  
O. M. Scott & Sons Co.  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
The Stanford Seed Co.  
Steele, Briggs Seed Co., Ltd.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Wright, Stephenson & Coy, Ltd.

#### ROSEN RYE

The Belt Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Cargill, Inc.  
Arthur R. Cone  
Cornell Seed Co.  
The Albert Dickinson Co.  
Craver-Dickinson Seed Co.  
Farmer Seed & Nursery Co.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Lewis Seed Co.  
Louisville Seed Co.  
The J. Chas. McCullough Seed Co.

Northrup, King & Co., Mpls.  
The Page Seed Co.  
The Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Shultz Seed Co., Inc.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
F. H. Woodruff & Sons, Inc.

#### SAGRAIN

Cornell Seed Co.  
Keller Seed Store  
R. E. Lambert & Sons  
Robt. Nicholson Seed Co.

#### SEED GRAINS

Advance Seed Co.  
The Belt Seed Co.  
Benton Mill & Whse. Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Cargill, Inc.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Funk Bros. Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Edgar F. Hurff Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
Montana Seed Co.  
The Nebraska Seed Co.  
Northrup, King & Co., Mpls.  
The O & M Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
The Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
Riemers' Farms  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.

Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Sedgwick Alfalfa Mills  
Shuler & Smoak  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### SERADELLA

Duryea Seed Co., Inc.  
Julius Loewith, Inc.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel

#### SESBANIA

Advance Seed Co.  
Capital Fuel, Feed & Seed Co.  
Cuff-Archias Seed Co.  
Ferry-Morse Seed Co.  
R. E. Lambert & Sons  
Julius Loewith, Inc.  
Northrup, King & Co.  
(Bomberger Div.)  
Simpson Nursery Co.  
Snelson Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma Co. Farmers Mktg. Assn.

#### SLENDER WHEAT GRASS

Blue Mountain Seed Growers Assn.

Cargill, Inc.  
Cornell Seed Co.  
Albert Dickinson Co.  
F. Lagomarsino & Sons  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
N. V. H. Mommersteeg's  
Zaadteelt en Zaadhandel  
Nebraska Seed Co.  
Newday Seeds, Inc.  
Steele, Briggs Seed Co., Ltd.  
Geo. P. Sexauer & Son  
Stollers Seed House  
Valker-Christensen Co.

#### SORGHUMS

The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Capital Fuel, Feed & Seed Co.  
Cargill, Inc.  
Condon Bros., Seedsmen  
Cornell Seed Co.  
The Albert Dickinson Co.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
Holmes Seed Co.  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Law, Somner Pty., Ltd.  
Ed. F. Mangelsdorf & Bro., Inc.

The J. Chas. McCullough Seed Co.  
Northrup, King & Co., (Bomberger Div.)  
Robt. Nicholson Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Purcell Seed Co.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
Valker-Christensen Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### SOYBEANS

The Ackerman Co.  
The Belt Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robert Buist Company  
Cargill, Inc.  
Arthur R. Cone  
Condon Bros., Seedsmen  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
Davenport Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Funk Bros. Seed Co.

Ging & Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Hungarian Farmers Co-op. Assn.  
Edgar F. Hurff Co.  
Geo. Keller & Sons  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Lewis Seed Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.

McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.

Charles R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
W. T. Nolin  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
The O. & M. Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.

Prunty Seed & Grain Co.  
Purcell Seed Co.  
Riemers' Farms  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Geo. P. Sexauer & Son  
Schuler & Smoak  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
Sommer Bros. Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

#### SPURRY

Agricultural Seed Co., Ltd.  
Duryea Seed Co., Inc.  
Julius Loewith, Inc.  
Stollers Seed House

#### SUDAN GRASS

The Ackerman Co.  
Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
N. Bonahoom Seed Co.  
The Bowman Seed Co.  
The Barteldes Seed Co.  
Robert Buist Co.  
C. S. Brent Seed Co.  
The Albert-Dickinson Co.  
Capital Fuel, Feed & Seed Co.

Cargill, Inc.  
Arthur R. Cone  
Cornell Seed Co.  
Craver-Dickinson Seed Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Griswold Seed & Nursery Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Holmes Seed Co.  
Jenks-White Seed Co.  
Geo. Keller & Sons  
Keller Seed Store  
Kelly Seed Co.  
F. Lagomarsino & Sons  
R. E. Lambert & Sons  
Land O'Lakes Creameries, Inc.  
Law, Somner Pty., Ltd.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Ed. F. Mangelsdorf & Bro., Inc.

The J. Chas. McCullough Seed Co.  
Charles R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
Northwestern Seed Co.  
L. L. Olds Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.



Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
J. M. Schultz Seed Co.  
O. M. Scott & Sons Co.  
Seaboard Seed Co.  
Sedgwick Alfalfa Mills  
Geo. P. Sexauer & Son  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
The Stanford Seed Co.  
Stollers Seed House  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
Valker-Christensen Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.  
Yuma Co. Farmers Mktg. Assn.

### SUNFLOWER

Advance Seed Co.  
Agricultural Seed Co., Ltd.  
The Belt Seed Co.  
The Bowman Seed Co.  
Robert Buist Co.  
Arthur R. Cone  
Corneli Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Ferry-Morse Seed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Hungarian Farmers Coop. Assn.  
Kelly Seed Co.  
F. Lagomarsino & Sons  
Julius Loewith, Inc.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Chas. R. Moore  
Robt. Nicholson Seed Co.  
Northrup, King & Co. (Bomberger Div.)  
Northrup, King & Co., Mpls.  
L. L. Olds Seed Co.  
Oriental Seeds & Plants Co.  
Ouren Seed Co.  
The Page Seed Co.  
Paramount Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
Wm. G. Scarlett & Co.  
Walter S. Schell, Inc.  
Shultz Seed Co., Inc.  
Snelson Seed Co.  
The Stanford Seed Co.  
Transcontinental Seed, Inc.  
Twin City Seed Co.  
T. W. Wood & Sons  
F. H. Woodruff & Sons, Inc.

### THISTLE

Corneli Seed Co.  
Duryea Seed Co., Inc.  
Chas. H. Lilly Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
The J. Chas. McCullough Seed Co.  
Robt. Nicholson Seed Co.  
Wm. G. Scarlett & Co.

### TIMOTHY

The Ackerman Co.  
The Barteldes Seed Co.  
The Belt Seed Co.  
The Bowman Seed Co.  
C. S. Brent Seed Co.  
Robt. Buist Co.  
Cargill, Inc.  
Roscoe J. Carl & Son  
Arthur R. Cone  
Condon Bros., Seedsmen  
Corneli Seed Co.  
Craver-Dickinson Seed Co.  
L. Daehnfeldt, Ltd.  
Davenport Seed Co.  
The Albert Dickinson Co.  
J. L. Donley & Bro.  
Duryea Seed Co., Inc.  
Leslie Edgerton  
A. Ertag, Inc.  
Ferry-Morse Seed Co.  
Funk Bros. Seed Co.  
Ging & Co.  
Goldberg Seed & Feed Co.  
Hamilton Seed & Coal Co.  
The Chas. C. Hart Seed Co.  
Henry Hirsch & Sons, Inc.  
Holmes Seed Co.  
Hungarian Farmers Coop. Assn.  
Edgar F. Hurff Co.  
International Seed, Inc.  
Jenks-White Seed Co.  
Geo. Keller & Sons  
Kelly Seed Co.

F. Lagomarsino & Sons  
Land O'Lakes Creameries, Inc.  
Lewis Seed Co.  
The Chas. H. Lilly Co.  
Julius Loewith, Inc.  
Louisville Seed Co.  
Magill & Co.  
Ed. F. Mangelsdorf & Bro., Inc.  
McCabe Bros. Grain Co., Ltd.  
The J. Chas. McCullough Seed Co.  
N. V. H. Mommersteeg's Zaadteelt en Zaadhandel  
Charles R. Moore  
National Seed Co., Inc.  
The Nebraska Seed Co.  
Newday Seeds, Inc.  
Northern Field Seed Co.  
Northrup, King & Co., Mpls.  
Northrup, King & Co., (Bomberger Div.)  
Northwestern Seed Co., Inc.  
L. L. Olds Seed Co.  
The O. & M. Seed Co.  
Ouren Seed Co.  
The Page Seed Co.  
Peppard Seed Co.  
The Philadelphia Seed Co., Inc.  
Prunty Seed & Grain Co.  
Purcell Seed Co.  
I. L. Radwaner Seed Co., Inc.  
Ross Seed Co.  
Rudy-Patrick Seed Co.  
Russell-Heckle Seed Co.  
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The Page Seed Co.  
Paramount Seed Co.

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# “Black Leaf 40”

# BLACK LEAF 40

## Has So Many Uses!

**For Flowers** Aphis (plant lice), leafhoppers, leaf miners, young sucking bugs, mealy bugs, lace bugs, most thrips . . . All these and similar insects can be controlled with Black Leaf 40. Full directions on the label. Spray early and keep the pests down.

**In the Orchard** Aphis, which can almost destroy an orchard crop, are readily controlled with Black Leaf 40. Likewise, leafhoppers and bud-moth. Black Leaf 40 is also useful in the codling moth program. Does not burn foliage and can be used readily with standard spray combinations.

**In the Poultry House** Black Leaf 40 is a great time-saver when delousing fowls. No handling necessary. Just spread a thin film on the roost with the “Cap-Brush” and the lice are killed as the fowls perch. Note: Directions on package describe special treatment needed for feather mite control.

**In the Vegetable Garden** Black Leaf 40 can be used either as a spray or in dusting vegetables. Kills both by contact and by fumes. Leaflets regarding dusting and garden spraying furnished upon request. Economical—“A little goes a long way.”

**For Live Stock** Black Leaf 40 is permitted by the U. S. Government in official dippings of sheep and cattle for scabies. Also an effective dip for lice and ticks on sheep and for lice on cattle. As a treatment for sheep stomach worms, it is effective when combined with copper sulphate in proper doses. Complete instructions furnished upon request, or see Black Leaf 40 labels and leaflets.

**To Keep Dogs Away** Dogs are a pest where evergreens, box planting and other hedges are available. Dogs do not like the odor of Black Leaf 40 and will avoid it. Spray where dogs are a nuisance.

Wherever you see an orchard, a flower garden, a vegetable garden, a flock of poultry or a flock of sheep, there is need for Black Leaf 40—the versatile product! Keep a supply of Black Leaf 40 on hand.

## Good Profits from BLACK LEAF 40

Black Leaf 40 is a profit-making line, primarily because it has a year-'round sale. This insecticide never goes to the basement, to be set aside until springtime comes again. Displayed on the shelf, it sells for poultry use, to keep dogs away and the like. Most dealers handle Black Leaf 40 because of its unusual profit-making possibilities.

## OTHER PROFIT-MAKING PRODUCTS

### Black Leaf Worm Powder

Roundworm (Ascaridia Lineata) in chickens is controlled by feeding a little Black Leaf Worm Powder mixed with the mash. The product is inert until it reaches the intestine of the chicken, where a chemical reaction takes place. The nicotine is then released and acts upon the worms. Chickens are not upset by this “shockless” treatment.

### Black Leaf Worm Pellets

Made of the same material as the Worm Powder, and used for individual treatment.

### Nico-Fume Pressure Fumigator

For greenhouse work, the Pressure Fumigator is outstanding in effectiveness as a fumigating agent. Write for full details if you are not familiar with Nico-Fume.

### Black Leaf 155

A special product, effective against the codling moth and certain other pests. Black Leaf 155 provides “non-wash” protection for the orchard.

### Mash-Nic

Mash-Nic is a standardized product, designed to take the place of the old feeding tobacco used for the control of roundworm (Ascaridia Lineata) in chickens. When mixed with the feed, it gives outstanding results. Full information will be furnished upon request.

## WE ADVERTISE IT — YOU DISPLAY IT!

In over 4,000 publications, ads tell the story of Black Leaf 40. Many of these publications are running the year around. Included in the advertising campaign are practically every farm paper in the United States, most of the metropolitan dailies, garden publications, many trade papers and over 3,000 country weeklies. If you display Black Leaf 40, you tie in with this big national advertising effort.



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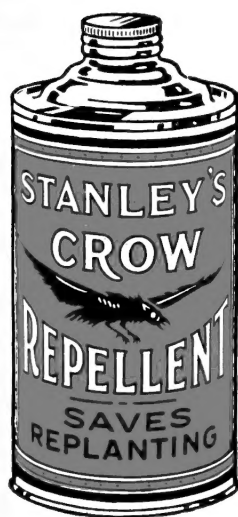
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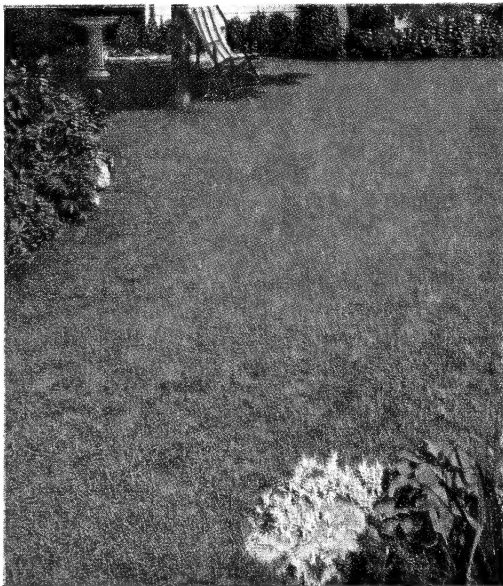
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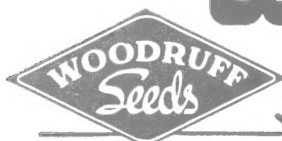


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